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CHICAGO, APRIL 21, 1923.

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WARM AIR FURNACE MAKERS TO TAKE OFFENSIVE

The action by the National Warm Air Heating and Ventilating Association, in appointing a Committee on Publicity and Trade Practice, at the close of its annual convention in Cleveland during the week just past, means that it has abandoned what some of its members have called a defensive attitude and has definitely taken a position of offensive.

This is as it should be.

There is no reason for a man who makes a good warm air furnace to apologize for its price, nor for its efficiency, nor for its limitations.

There is no reason for a man who installs warm air furnaces in a proper manner to apologize for his work or for the service he renders to his customers.

Warm air furnaces, properly made and efficiently installed, will and do heat a great majority of residence buildings more efficiently, more economically, more satisfactorily from a health standpoint than either steam or hot water.

But the propaganda of those engaged in the latter trades has in the past often placed the warm air furnace man in the position of apology for or defense of the "make-shift collection of cast and sheet iron which is called a furnace." Progress has been made, however, and from now on—or rather when the Committee shall have formulated and put into action its plans—the furnace industry will be active in showing the public, the architect, the home builder—anybody who is interested in residence heating—that warm air furnaces,

properly made and installed, are better than any other system of heating.

We are to carry the fight into the "other fellow's territory"—which is in full accord with the practice and experience of real, successful fighting men.

Successful selling is always carried on along the lines of aggression—of seeking out the prospective purchaser and then proving to him, by facts already established, that the article offered is the thing that will suit his purpose best at the price.

But the appointing of the Committee is only the first step—important because without such action we should have been continuing along the same old line without getting anywhere—and it must be followed up by loyal support by the membership of the Association, as well as by the close and hearty co-operation on the part of the installers.

In other words, the Committee has three jobs on its hands:

First, to formulate plans.

Second, to "sell" these plans to the manufacturers as individuals, as well as to the organization as a whole.

Third, to "sell" the portion of the plans which apply to the installer to those who come in actual contact with the ultimate buyer.

Truly, it is a big job. But we believe that the Committee has the vision, and the good sense, and the energy to put the proposition through, and when the results begin to show many will be asking themselves:

"Why was this not started long ago?"

Random Notes and Sketches.

By Sidney Arnold

Charlie Binns, of the Copper Clad range folks, had a bad case of gripe a few weeks ago, and two doctors attended him at his rooms in the Missouri Athletic Association building. One of them prescribed a drink of Bourbon — — — (the dashes stand for the drink which Mr. Volstead has outlawed), to be taken at regular intervals.

When the doctor called the next day he found that his directions had not been filled, as the bottle was still full, and Charlie told him that he had not felt the need of the stimulant, as he began to get better right after the departure of the two physicians.

On leaving the club, the doctor was accosted by the doorman with an inquiry as to Mr. Binn's health and received the reply: "The darn fool is getting better although he refuses to follow my directions. I left a bottle of perfectly good liquor for him to take a drink of every so often, and he never took one all day."

When Charlie recovered, he was greeted by the doorman with this confidential remark: "Glad to see you well again, Mr. Binns. You sure did fool that doctor, but you can't fool a doorman. What was it you put into that bottle?"

* * *

"Always conserve your energy, and do not waste in worry or needless effort," said John B. Sauer, of the Meyer Furnace Company at the Illinois Sheet Metal Contractors, as he finished counting the nice surplus in the funds of the Auxiliary, "but I do not exactly recommend the attitude of the hired man in this story:

"I swan, Jethro," remarked Farmer Hogs bloom to a neighbor, "that new hired man is the laziest yet. I've seen 'em lazy, but he suitinly do beat all. Why, today he got tired and sot down plumb on a hornet."

"Ho, ho!" chortled Farmer Hornsbee. "I vum he got up the quickest he ever moved."

"Nope. Jest sot there—said he guessed it wouldn't sting twice."

* * *

Tom Cox, who "covers" Illinois for the Front Rank furnace folks, is a good story teller. Here is one that I heard him pass along:

After a young colored couple had been married by a white parson, the groom turned to the latter and asked:

"How much does Ah owe yo', Rev'ren?"

"Oh," said the minister. "Pay me whatever you think it's worth."

The young fellow regarded his bride with adoring eyes. Then he turned to the minister and said mournfully:

"You's ruined me fo' mah financial life, Rev'ren'. Yo' sho' has."

* * *

A. J. Robinson, the former Excelsior stove man, who is now in the wholesale stove business for himself with headquarters at Quincy, told me the following story as a sample of the "carefulness" of some people:

The dear old lady entered the drug store and looked doubtfully at the youthful clerk behind the counter.

"I suppose," she began, "that you are a properly qualified druggist?"

"Yes, madame."

"You have passed all the examinations?"

* * *

Sam Burgess, of "Out-o-Wall" register fame, sent me recently a good story, as follows:

Edgar, the eight-year-old son of the house, was as lacking in sentimentality as the average small boy and was particularly annoyed by the caresses which his feminine relatives insisted on thrusting at him. One night he was sent to bed shortly after the arrival on a call of a dis-

tant connection who, as he was starting to mount the stairs, called:

"Won't you give Cousin Mattie a kiss, dear."

Thoroughly sickened with the whole sex, Edgar turned appealingly to his father and said:

"Dad, for Heaven's sake kiss this woman, will you?"

* * *

"Some of us have had more or less success with our radio apparatus," says J. G. Holch, of the Milwaukee Corrugating Company, "and the following conversation which I overheard the other day is a fair indication of how some of them work:

Four-year-old Bobby was being taken for a walk on the street and he and his mother passed a gang of Italian workmen jabbering excitedly in their native tongue.

"Oh, mamma," he ejaculated, "it sounds just like the bedtime story on our radio."

* * *

"The most innocent remark is very often taken in a manner entirely different from the intention of the person making it," said Leo Beach of the Bridge & Beach stove folks the other day when I was visiting at his office in their fine new factory, and then he proceeded to tell me the following story as an example:

A commercial traveler arrived home one day and said to his wife: "I have done something today that I ought to have done when I first started on the road. I have taken out an accident insurance policy on my life. If I am killed the company will pay you \$5,000. If I am injured I get \$25 per week."

The next morning, when he was ready to start on his journey, his wife threw her arms around his neck and cried:

"Now, John, for Heaven's sake, whatever you do, don't get injured."

As it happened, John did not connect this parting admonition with the news he had brought home the night before, but what sort of feeling would he have had if he had thought of it?

National Warm Air Heating and Ventilating Association Holds Successful Meeting at Cleveland, Ohio, April 18-19

President Jones Cites Substantial Progress in Products and Furnace Construction; Outlook Favorable.

THE National Warm Air Heating and Ventilating Association held its Tenth Annual Convention at Cleveland, Ohio, Wednesday and Thursday, April 18 and 19, with the largest attendance on record. The headquarters of the convention were at the Hotel Winton.

The first session opened with the reading of the minutes and appointment of committees which took place promptly at 10:30 a. m. The committees appointed were the Auditing and Nominating.

On motion by J. V. Patten, seconded by D. Rait Richardson, Professor J. D. Hoffmann, of Purdue University, was made an honorary member of the Association in recognition of his important services to the warm air furnace industry.

Recommendations of Executive Committee.

1. That the subscription for the research work at the University of Illinois be continued, the approximate amount being \$5,500.00 for the coming year.

2. That the allowance for the Secretary's office be increased to \$6,000.00.

3. That a reliable list of architects be secured, for the purpose of keeping them informed upon the progress of this industry.

4. That sufficient funds be allotted for the reprinting and distribution of Professor Hoffmann's booklet on "Better Homes."

5. That an appropriation be made in the budget for the cost of a service which renders reports on all proposed legislation affecting the warm air furnace industry.

6. That Detroit be the meeting place for the 1924 Convention. This recommendation was voted down at once, Cleveland being chosen.

Open Hour Discussion.

R. C. Cook—I feel that the prospects are good for a substantial

business all during this year and 1924. We are running on full time in all departments. With the fact in mind that furnaces—like automobiles or ranges or any other article—will last only a certain length of time, we have a right to look for and prepare for a steadily growing replacement business.

John Fry—While I agree with Mr. Cook, I am inclined to warn you and everybody else against un-



I. L. Jones, Retiring President.

due advances. We are going to be extremely careful in that matter; you remember what took place in 1919 and I am sure that more of us want to have the consumer get to the point again where he will quit buying because prices are too high.

E. B. Langenberg—Business is good now, but I look for a little slackening shortly before the end of this year; we are placing orders for all regular requirements of a good fall season, but we are not speculating on further price advances. We will pay whatever the market calls for when we need to buy.

J. M. Robinson—We look for a good trade all through 1923. Further than that I don't care to go.

George Harms—Buy all you need for all of 1923, but be careful in committing yourself on orders for 1924.

D. Rait Richardson—if present conditions prevail until July first all of 1923 is going to be fine. Retailers always keep us busier in the fall than we like, because they are unwilling to place orders early. We are buying our raw material gradually even if it means a higher price, and we are going ahead on the basis that all of 1923 will be a good year.

F. G. Sedgwick—We are buying all we need for 1923 and we are advising our customers to do likewise—in preparation for a heavy fall business.

John H. Hussie—The chief trouble that I see is the fact that there is too great disparity between the cost of things that farmers have to buy and the things he can produce and sell.

Oil burners were discussed briefly, the suggestion being made by several that manufacturers should post themselves on cost of operating such attachments, so as to be in position to give intelligent and important advice on the subject.

D. Rait Richardson made a motion which was passed, to the effect that Secretary Williams prepare a list of trade names now in use on furnaces and furnish such a list to all manufacturers so as to avoid the duplication of names, such as is now the case in many instances.

The recommendations were followed by President I. L. Jones' address.

Excerpts from President Jones' Annual Address.

I shall depart from the usual custom and not read to you a lengthy address, as we have many more important matters to discuss.

The past year has been one of substantial progress—not only in

output and sales and profits, but also in the matter of actual improvement in furnace construction, production and installation.

Conditions, speaking generally, of course, are satisfactory and the outlook, so far as I can judge, is distinctly favorable. Stocks are low with manufacturers as well as with wholesalers and retailers. The demand is good now and will undoubtedly increase by August or September, unless something, now improbable, should interfere. Prices are consistent with production costs.

It is, of course, of great importance that we as manufacturers know our production costs and provide for them in our selling price—especially in view of the advancing costs of labor and materials.

We have an excellent program for this convention from now on, and I am sure that every one of you will feel benefitted, and be benefitted by having been in attendance.

President Jones' address was followed by the reports of Treasurer John Kerch and Secretary Allen W. Williams.

The secretary's report is as follows:

Annual Report of Secretary Allen W. Williams.

Someone has said statistics as statistics are not held in high esteem, but if correct are necessary and valuable. Your officers again recognizing the aversion of manufacturers to furnishing liberal statistics and realizing whatever collected was of no value unless correct and representing the replies of a large majority of our industry, for the fourth year directed only one inquiry be made.

There is much data that would be helpful and valuable that could be collected without disclosing the business of individual companies, but until the reluctance to furnish such statistics is dispelled, it seems quite useless to undertake the compilation of anything more than we are doing at present.

If there were some way in which the United States Department of Commerce might direct such work in all industries the desired end would probably be accomplished. The Department of Commerce is suggested rather than the Federal Trade Commission as the business world appears to have the feeling that the Department of Commerce is ready and anxious to be helpful to manufacturers and merchants, while the attitude of the Federal Trade Commission is unfortunately at times discouraging, if not actually destructive. Whether or not there is any justification in such a feeling toward that governmental department, the fact remains that such an idea exists.

The information requested this year was:

"What was your percentage of increase or decrease in the total number of furnaces, pipe, pipeless and room heaters you sold during 1922, as compared with 1921."

Please note the question was changed this year to the "number sold," whereas formerly the "number manufactured" was requested.

This inquiry was sent to 224 companies in the United States and Canada. In fact, to all furnace manufacturers on our list. One hundred and forty-seven answers were received as follows:

109 houses reported increases.
23 houses reported decreases.
12 houses reported no change.
3 houses replied—first year making furnaces.

The pleasing part of this information as compared with one year ago is the complete reversal of increases and



E. B. Langenberg, Newly Elected President.

decreases reported. In other words, the report of 1922 showed only 12 houses reporting increases, against 109 this year, and 130 houses reporting decreases, against 23 in our present report. A slight increase is noted in the number of replies received. The percentage of decreases reported were not as large on the average as the percentage in increases.

It is not an easy matter to analyze the answers received, and perhaps it is of little use to do so, but as an estimate—and it can only be an estimate—that is frequently requested it might be said that in 1922 the total number of furnaces sold by manufacturers was somewhere between 40% and 50% more than in 1921.

Collection Bureau.

Number of accounts received to date.....	1,078
Amount of same.....	\$145,552.58
Amount collected during the year	13,354.25
Amount collected to date..	81,947.50

Without any thought of urging you to use our collection department beyond your own inclination you are respectfully reminded that it is at your service and that the expense of collection may often be saved by permitting the Association to handle your slow accounts.

Costs.

More for future reference, the following is read into this report:

During the first part of 1922 no marked change was noted in costs, although during the early months of the year trade was light and overhead was consequently out of proportion. In August costs advanced and in September probably this increase was first reflected in selling prices, although such changes were irregular and less than conditions justified. The first part of 1923 developed very marked advances in labor and material costs have followed suit to this time.

Selling by Quarters.

The practice of selling warm air furnaces and heating supplies for delivery by quarters as followed during war years was at that time, of course, a war measure, but it appears that every year since that time conditions and fluctuating costs of production have clearly indicated the wisdom of establishing such a custom as a permanent trade practice in our industry. I am taking the liberty of calling your attention to this matter because of the suggestions to that effect that have come into my office and because it does seem important enough for our Association and the local associations to definitely consider.

Research Activity.

The reports of the Advisory Committee and of Professor Willard and his associates will show that more practical progress has been made during the last year than since the inception of this undertaking by our association.

During the year I visited the university and met there with the Advisory Committee.

No doubt due acknowledgment will be made in the reports submitted during our convention of the contributions of material, supplies and equipment as well as the use of heaters donated during the year. These generosity have not only made for a considerable saving in expense, but have been an encouragement to the Advisory Committee and to the research staff.

The continuous and numerous letters and inquiries received in my office certainly indicate the importance of this work and how much it means to our industry. Here is what one writer said in print last December:

"The research work being done at the University of Illinois is being watched by many outside of the furnace industry and its influence will be more potent than is expected by some who are reluctant to about face and join in the march for progress."

As time goes by it will be interesting to note that in January, 1923, information in reference to warm air heating and our research activity was broadcasted by radio for the first time. This is a good indication of how progressive Professor Willard and his associates, Professors Kratz and Day, are and how thoroughly they are interested in our method of heating.

Through the courtesy of Professor Willard, I have distributed, since our last meeting, three important bulletins reporting results from the research work, the same being for the confidential use of our members.

The Chamber of Commerce of the United States in their Bulletin 18 refers to research work as a "Constructive Trade Association Activity." They state:

"If there were no correlation of effort on research work, much duplication might result. The logical solution, therefore, is to have the trade association make this correlation. This enables a pooling of resources to maintain a central laboratory to render service to a larger group than is possible with only individual laboratories. Another and very important factor, especially valuable in strengthening trade associations, is that such centralized research work makes it possible for the small manufacturer, financially unable to support an individual laboratory, to profit from the investigations carried on."

Standard Code.

Since the adoption of the Standard Code of our Association it has been endorsed by the National Sheet Metal Contractors' Association, Western Warm Air Furnace & Supply Association and the Midland Furnace Club.

Orders were received in my office for approximately 100,000 copies. Requests for single copies from architects, installers, consumers, engineers and colleges have been innumerable and of course supplied.

As directed I have sent copies of the code to all furnace manufacturers in the United States and Canada whether members of our Association or not. The architects are not to be overlooked in our distribution of the code, but it has been difficult to find a reliable list until within the last few weeks.

Ever since its publication many compliments have been received as to the work done by the Code Committee and upon the code itself. Evidently it will be more than a "Paper Code."

In January our Association was asked to contribute to the warm air heating section of the 1923 "Guide" as published by the American Society of Heating and Ventilating Engineers. Copy of the Standard Installation Code was offered as the best matter we could furnish at this time for publication.

Several cities have signified their intention to use the Code in their local Code requirements.

If we were more or less disappointed in not receiving the complete endorsement of the code by the American Society of Heating and Ventilating Engineers, we must admit they have and are giving it much consideration.

May I take this opportunity to say that if in the past that organization appeared somewhat indifferent to warm air furnace heating, their convention programs for some time have included papers and discussions on this subject, and at their January meeting one full half day was devoted to matters pertaining to heating with warm air.

Review and Prospects.

Dodge report shows that the 1922 increase in residential construction over 1921 was 53 per cent. In January, 1922, some rather good authorities declared that dwelling building was likely to decline during 1923, and it therefore behooved distributors to devote special attention to replacements. Whether the demand is good or not,

replacements are certainly becoming an opportunity which should never be overlooked. It is pleasing to say that apparently there is to be little let-up in home building this year in spite of the high costs of materials and labor.

The question is often asked, How many furnaces should a certain city and its vicinity absorb or use per year. Someone has suggested that in localities where furnaces perhaps have the lead, as the method used, that one to every 100 population is a fair average. Checking this in localities where the information as to the number of heaters sold was fairly accurate, it is interesting to note that this ratio seems to check.

It is interesting to note that The Architectural Forum refers to 1923 as a Five Billion Dollar Building Year. In their forecast for 1923, they state:

"The first great waves of speculative building and construction of the cheaper type have passed, and 1923



Allen W. Williams, Re-elected Secretary.

will be remembered as a year in which a great volume of good building construction was produced. It is evident that residential construction will continue in volume almost equal to that of 1922 with greater activity in the more expensive types of dwellings. Considering all facts, it is certain that 1923 should be a year of sound prosperity for all branches of the construction industry provided no advantage is taken of conditions either in the cheapening of the quality of materials or the enforcement of prices which represent too great a margin of profit."

Monthly Letter.

The monthly letter, suggested two years ago by President Jones, has been continued during the past year. Its object is simply to keep the membership in touch with the activities of the Association, and advise them of matters of interest in the industry and to do this in short form.

Cooperation with Other Associations.

During the past year I have attended the annual convention of the National Sheet Metal Contractors' Association, the Ohio Sheet Metal Contractors' Convention and the meeting of the Western Warm Air Furnace and Supply Association.

At the meeting of the Western Warm Air Furnace and Supply Association in Chicago Dr. E. Vernon Hill, in referring to the so-called physical factors in ventilation, called attention to the fact that a definite relation is being established as to air in motion. As the editor of Heating and Ventilating Magazine says, "Between temperature, humidity and air movement."

It is a pleasure to report to you that I am sure the best feeling exists among all of the kindred organizations and opportunities for co-operation are thus materially advanced.

We have also cooperated with the American Engineering Standards Committee, which has the support of technical, industrial and governmental organizations. Not many of our supplies or interests are involved so far, but we will be advised and consulted when they are.

Our Association is given credit for this co-operation in their Year Book, covering 1922, that has just been published.

Freight Matters.

I attended hearing before the Trans-continental Classification Committee in Chicago last July. The same being in reference to lower rates to Pacific Coast points. Reductions have since been placed in effect on furnaces and much credit is due Miss E. B. Stevens, traffic manager of our member, the Waterman-Waterbury Co., and Mr. M. H. Owen, traffic commissioner of the National Association of Stove Manufacturers, for the change obtained. Last fall when so many embargoes existed, an effort was made to have heating and cooking appliances placed upon the priority list. It was not possible to secure such a sweeping preference, but the Interstate Commerce Commission did recognize our goods as a real necessity and entitled to preference, and requested a thirty-day exception by the railroads to embargoes on furnaces and heating and cooking apparatus. In most every locality this was respected and granted, and had nearly the same effect as a priority.

It was not only a relief at that time, but the precedent established by this action may count for much under similar conditions that may occur in the future.

A reliable authority on the transportation situation states during this year the success of private ownership and operation of railroads will have been well demonstrated. By September railroad equipment will be in better condition than for the last 20 years and the supply of box cars will show a very marked improvement.

Standardization.

Many times during the year expressions have come to me indicating a wish that our Association as the national organization give serious attention to the subjects of standardization of both heaters and accessories. From what has come to my office there is evidently a willingness to co-operate in this matter and plenty of opportunity in our industry.

Oil as Furnace Fuel.

The use of oil as a fuel in warm air heaters has not been particularly attractive so far as an economy or as a substitute for coal, but the high price of coal, the frequent coal strikes of

miners and frequent transportation difficulties make its use look attractive, and there seems to be a tendency towards improvements in appliances for burning oil in warm air furnaces.

The desire for shorter terms is apparent among the manufacturers. This does not mean that it may not be desirable to afford opportunity for certain consumers to purchase furnaces on extended payments, but rather that the dealer should finance himself and his partial payment sales in the same manner as is done successfully in other industries. In other words, the furnace and accessories manufacturers should not be bankers for their dealer customers.

Piracy.

The old practice of piracy of patterns has come to be regarded as so unethical and in the final analysis so unprofitable that it is seldom brought to the attention of my office, but as one or two cases developed in the past twelve months I may, I believe with propriety, remind you that our organization is on record as opposed to such practice and pledged against it.

Favors from the Trade Press.

Every year it has been a pleasure to call your attention to the generous publicity and support which these good friends have given our Association as well as the industry as a whole, and the past 12 months has been no exception to their constant effort to advance warm air heating.

Conclusion.

The past Association year has been a busy and pleasant one, and progress has been made, thanks to the guiding hand of President Jones and the help of the other officers of the Association as well as the cooperation which has been given by each member.

Our Association and the officers are committed to service to you and your suggestions and advice are always needed and welcome. I believe that we should feel encouraged by the success of the past 10 years.

The report of the legislative committee followed that of the secretary and was delivered by Henry E. Schwab, Vice-Chairman.

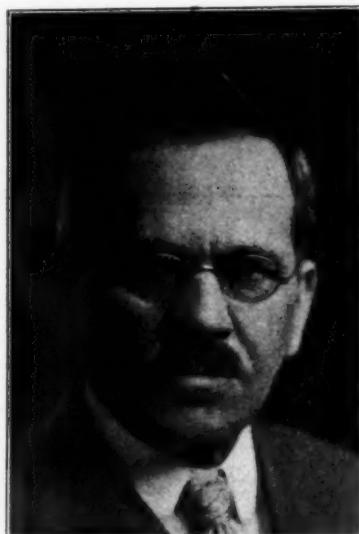
Report of Legislative Committee.

During the past year there has fortunately not been much that has required particular activity on the part of your committee. This is largely due to a change from the desire evidenced at times in the past to rush through State Legislation laws governing the installation of warm air furnaces and the licensing of installers.

It is gratifying to your committee to have noted during the past year the approval of the Standard Code, first by our Association and then in rapid succession by the National Association of Sheet Metal Contractors, the Western Warm Air

Furnace & Supply Association, and the Midland Furnace Club, as well as the qualified endorsement by the American Society of Heating and Ventilating Engineers.

In June your chairman noted provisions in the Kentucky code governing the installation of warm air furnaces in dyeing and cleaning establishments. They seemed rather unreasonable, but as the law was already in effect and the fire hazard in such a place is at best great, it seemed wise to take no action toward a nullification of the law



John Kerch, Retiring Treasurer.

which if attained might afford some opportunity to blame a fire loss on the warm air furnace.

In February legislation proposed in the Ohio Legislature contemplated that all heating devices, including all types of warm air furnaces, must be sent to the Ohio State University for approval before they could be offered for sale or distribution. The bill was sponsored by the Ohio State Board of Health on account of the large number of deaths from carbon monoxide gas that were accruing in Ohio. Our committee was represented at the hearing which had not progressed very far before warm air furnaces and other heating apparatus, with the exception of gas stoves were eliminated from the provisions of the bill. We are advised that municipalities contemplating changes in their heating codes are favorable to the Standard Code, which is very gratifying.

In Wisconsin, after an Advisory Committee had unselfishly put a great deal of effort into the drafting of a proposed Code on Heating and Ventilating, their work was laid aside, and the Industrial Commission arbitrarily substituted a code drafted by themselves. When this tentative code was printed and circulated, the Advisory Committee had the following clause rubber stamped on the cover: "The Advisory Committee does not fully concur and want your criticism. Public hearings were held in four cities and your committee's representative in that territory was present at the Milwaukee hearing. The criticism was so strong in opposition to the code that the Advisory Committee has again been called into being, and it is hoped that their recommendations will be embodied in a new tentative code.

During the past year, some local ordinances have been given attention and the trend of legislation watched carefully.

Harmony among the various interests in our industry has continued and our relations with our organization are so happy and pleasant that the duties of this particular committee have been lightened, and there is no question that through this condition it will be possible for your Legislative Committee to accomplish more and solve problems that must otherwise be difficult.

At this point a report of the joint committee on standard code was heard and this address was given by Clarence M. Lyman.

Report of the Committee on Code.

Your Committee can only come before you with a record of what has transpired since the last meeting.

You will recall that the Code as amended was approved at that meeting. Following your action it was later approved at Indianapolis by the Western Warm-Air Furnace & Supply Association, and the National Association of Sheet Metal Contractors.

Later it was also approved by The Midland Furnace Club, and the

New England Association of Furnace Manufacturers.

Printing was delayed to await the action of the American Society of Heating and Ventilating Engineers at their mid-summer meeting, but at that meeting after a lengthy discussion, the Code was referred back to the Committee for further deliberation.

As it was impossible to incorporate changes suggested by the Society even if your committee had approved of them, which the majority did not, without resubmitting the proposition to the organizations already on record, it was decided to print the Code as authorized by those which had already voted in its favor. This has been done, and 140,000 copies published and distributed.

As a whole the favorable acceptance of the Code has been very general. Criticism has arisen, of course. The code is not complete but it is a decided step forward. It must be remembered that a Code such as this to be workable and to have universal adoption, must be prepared in non-technical language, and free from any complicated formula. It must also avoid committing users to rigid methods of installation, since common practice varies widely in different sections of the country.

Your committee knows that many of the points raised by critics have recognized merit. It is hoped that by the end of another year the experimental work at the University of Illinois will be so far completed that a satisfactory method of rating warm-air furnaces may be submitted.

It is also felt that with another year's trial of the Code in its present form, practical results secured will determine whether it is wise to change the factor 8 to 9, whether wall stacks having 60% or 75% of the area of the basement pipes should be used, and whether such stacks should have a minimum narrow dimension of 3 $\frac{1}{2}$ inches or 4 $\frac{1}{2}$ inches.

It is also felt that either this or a new committee should soon take up

the question of a Code applying to schools, churches, halls, stores and factories, both where air is circulated by gravity, and where a fan is used.

But your committee is unanimous in its recommendation to this Society that no changes or amendments be incorporated in the code at this time, and in the further recommendation that each member of this Association gather and forward all data possible from actual installations made in accordance with the code to the secretary of this committee, together with any constructive criticisms brought out through such installations.

These reports were followed by a general discussion of matters pertinent to the industry and trade names.

The report of the Advisory Committee on warm-air furnace research was next given by P. J. Dougherty, Chairman of that committee.

The afternoon session of the first day was opened with an address on "Cost Finding Methods in the Furnace Industry" by R. G. Bock.

Excerpts From Mr. Bock's Address.

Considering the subject collectively, as we are, it is of course necessary that we do so in as general a way as possible, taking into consideration the individual problems confronted in a given application.

It is not necessary to say very much as to whether a cost system, so-called, is needed by manufacturers; in this connection, however, I would like to call your attention to an incident that occurred only a short time ago.

A manufacturing concern, well established over a period of twenty years, put through a complete revision in their selling prices almost immediately after correct costs were available. Two of their largest items were being sold at a loss without their knowledge. They cancelled plans for a method of distribution that had been developed almost to completeness, I say almost to completeness, as the only thing they had overlooked was the net profit left in their articles after being sold under this plan.

Selling prices, to insure profit, must be based upon accurate costs. These must be determined from plant possibilities. Too many people are apt to consider a cost system as a combination of forms. Forms are only a physical expression and are used to facilitate the gathering of cost information.

Let us learn to consider a cost system as a means for the analysis of our business. Analysis is the big thought. Any question can and should be answered or decided after a careful analysis of the surrounding conditions has been made.

Recently I was asked by the head of an Eastern furnace manufacturing concern if, in my opinion, it was advisable

for them to discontinue certain items of their line and concentrate their efforts on the manufacture and distribution of furnaces only. I was asked this question after I had been in conference only a few moments. This seemed to be what they were primarily interested in.

I could, of course, not answer this question, as I was not familiar with their problems and did not, nor did they, know what margin of profit was being made on the various items of their line. This executive finally told me that he would get some forms that were being used in a brass foundry that he was interested in and use them.

This surely was not getting at "Cost Analysis." It is an old concern and has not shown much growth for the time they have been in business.

I could cite many more similar cases, but I desire to mention this one in particular. Another furnace manufacturer, feeling that it was rather a poor policy to wait until the end of the year to find out what profit they were making decided to install adequate cost finding methods. They were adding several new styles to their line, contemplating changes in their method of manufacture, and growing. After the Cost System had been installed the fact was revealed that the manufacturing cost, exclusive of commercial expense, was in the neighborhood of \$150.00, against a representative selling price of \$125.00, or a direct manufacturing loss of \$25.00.

Through cost analysis, and by taking every advantage of their plant possibilities they were able to reduce their manufacturing cost to about \$45.00. This was a reduction of about 66% per cent that was effected in a very limited time.

While this may seem rather an extreme circumstance, yet the program they adopted was pointed out to them very clearly as the costs were reflected under various conditions.

Cost Finding Methods in the Furnace Industry.

Getting back to our subject of Cost Finding Methods in the Furnace Industry, let us by analysis decide what methods we should use to determine our costs. Let us think of our subject as methods, as interpretation, rather than as forms and accounts.

The primary purpose of a furnace manufacturing business is to produce and market as good a heater as possible at a price which includes profit. Profit is the difference between selling price and a figure that includes not only the cost of producing but marketing as well.

Broadly, then, we will consider our problem as taking in or including two main functions, namely, manufacturing and marketing. One as important as the other and interrelated.

As the Sales Record is the barometer of the marketing of our products, so is the Cost Record the barometer of how successfully we are making the grade from a manufacturing standpoint.

Getting into the methods of cost determination, let us find out what it is we want to find costs of and what detailed information relative thereto will be most valuable.

In determining the cost of furnaces, we will consider the representative value included in the furnace up to the time it is placed in the warehouse for distribution as manufacturing cost, and any ex-

pense from there on as that of marketing.

Let us take our product as we find it ready for delivery and disassemble it. The furnace, generally, consists of two main units, namely, the furnace proper and the casing.

The cost of casings should be specific, that is, the material, labor and expense incurred in producing the casing will be directly identified to the product in accordance with the manner in which they are manufactured.

This would ordinarily be in lots of certain quantities of each style and size of casing.

From observation and taking into consideration the statement just made, that is the necessity for direct identification and analysis of our product step by step during the entire process of manufacture, the cost of furnaces must be by style and include the cost of metal, castings, mounting, crating and packing.

1. Of metal we will want to know the cost of pig iron, scrap, coke, etc., that enters the cupola, the labor and expense incident to melting our iron and the pounds of good castings produced therefrom.

This cost should be on a per pound basis, as it is this basis that we use in analyzing our costs and applying our expense up to and including the cleaning of our castings.

2. Our castings cost, in a similar way should reflect the molding labor, metal cost, molding and cleaning expense. Of bad castings we should know that the proper division is made between the company's and the molder's loss.

These losses should be watched and the cause therefore determined, whether it be due to patterns, poor molding, bad iron or what not.

Breakage, whether in the mill room, mounting or packing room should be known. This is a very important item of expense incurred in the manufacture of warm air heaters which should not be overlooked.

3. The cost of mounted or assembled furnaces includes the cost of the component castings and supplies, mounting room labor and expense.

Together with this detailed cost information we will want a monthly balance sheet and an operating statement, disclosing the results of operations by line of product.

Correct General Accounting Methods Necessary for Accurate Cost Control and Business Analysis.

Correct general accounting methods are preceded by a properly developed chart of accounts. This chart of accounts becomes the backbone or skeleton of the entire accounting structure. It is a representative picture of the information we desire.

It consists broadly of a proper classification of Asset, Liability and Income and Expense Accounts.

A correct classification of accounts facilitates matters from a bookkeeping standpoint and induces the general ledger bookkeeper to consider this record as a representative picture of the business, rather than a jumbled up mass of accounts.

I will not take time to completely review this classification, but I want to include the following inventory divisions, Raw Material, General Supplies and Stores, Work in Process, Castings Stores and Finished Product.

The sales and cost of sales should reflect the divisions of our line of product as it is this information that we are particularly interested in.

Our departmental classification should be broadly divided as to productive and non-productive groupings.

As productive departments we will include our foundry subdivided as to Cupola, Molding Room, Core Room and Cleaning Room; other productive departments would take in the Mounting Room, Packing and Crating Room, Tin Shop and Pattern Shop.

Our non-productive groupings would include stores divisions for Raw Materials, General Stores and Supplies, Castings and Finished Product, and would also include Pattern Storage, Heating and Power Plant and General Factory.

Our commercial divisions would be the Administrative, Selling, Engineering and Shipping departments.

Omitting the detailed expense classification and the actual development of our general accounting forms, which includes the Cash Receipts and Disbursements Record, Accounts Payable and Distribution Record, Cost and Sales Summary, Journals, etc., we can now start to develop a standard assembly list of the component parts of our various styles of furnaces.

The list should reflect by style of furnaces the various parts, sub-assemblies and assemblies included in the same sequence that the furnace is built.

Each part, sub-assembly and assembly, should be numbered, and the quantity used in each furnace shown. This forms the basis for our material and production control, through a regular manner of numbering our parts.

Cost Determination.

Let us follow our product as it is manufactured, starting at the Cupola.

A definite record is made of each charge. This record reflects the quantity and grade of iron used, scrap, coke, etc., and is sent to the cost department daily, where it is summarized. The monthly totals are posted to a Balance of Stores Record, priced and extended and this cost passed as a debit to our Metal Account, together with the Cupola Labor and Expense. Dividing this accumulation by the pounds of good castings produced, we arrive at a per pound cost of metal at the spout.

From a manufacturing standpoint the common practice is that individual molders work on certain patterns on a piece work basis.

A production record is maintained of what goes into the sand, good and bad castings produced, Company's Loss and Molder's Loss.

At the end of a period, this is totaled, pay roll prepared and the corresponding labor charges made against a parts cost sheet reflecting the quantity produced, weight either actual or from a predetermined basis, discounts, etc.

At the end of each month the parts cost is determined, metal priced at the cost per pound at the spout, the molding expense applied on a per pound basis and the individual parts costs summarized on a Completed Order Summary—Parts.

As the castings pass the mill room they are weighed and the pounds of good castings reported. The pounds for the month thus reported should be reconciled with the totals reflected by the Completed Order Summary—Parts.

The physical control of castings in the mill room is of utmost importance, as

after the castings are cleaned, certain defects may appear that are chargeable to the molder. As the castings pass the mill room they are ready for mounting purposes. The cost accumulated up to this point, by means of our completed order summary is charged to casting stores and credited to work in process.

About a year or so ago we found, in a good sized foundry in Iowa, that the molders had consistently been taking castings from the mill room and putting them through with their next day's work. They had used them to replace bad castings produced, to fill in shortages in their floors. This was rather an expensive practice to the company, as they were paying for something they were not actually receiving.

It was found necessary, to correct this condition, to establish a rather rigid physical control of the castings after the floors had been counted. This was immediately reflected in the cost of castings.

Cost of furnaces, as previously mentioned, should be by style. A standard assembly list of the component parts of each style of furnace having been assembled, we have only to get the mounting room labor against each style of furnace, cost the parts as shown by our parts cost record and apply our manufacturing expense on a direct labor basis.

The total production for the month of each style of furnace is determined from our production record. The accumulation of costs as reflected by the assembly cost sheets is divided by the quantity produced and a unit cost per furnace is thus established.

A completed order summary—mounted furnaces is developed and this passed as a credit to work in process and a charge to finished product.

A cost and sales summary by line of product is maintained. Each sales invoice is costed. The cost and corresponding selling price for each division of sales is posted to this summary. At the end of each accounting period the accumulated sales value is passed as a credit to sales, by line of product and charged to accounts receivable. The Furnace costs similarly are charged to a corresponding cost of Sales Account and credited to Finished Product Inventory.

The difference then, between cost and selling price reflects our gross profit by line of product, from which is deducted our commercial or marketing expense.

After all closing entries have been made, a balance sheet and an operating statement is prepared. Our expenses, as mentioned, are functionally divided and this is set up in statement form. Each individual item of expense, divided in accordance with our expense classification is compared with that of the previous month both on a dollars and cents and a percentage basis. The current months percentage equivalent is compared with the representative percentage equivalent of the accumulation to date. Any increases or decreases noted.

This in a general way describes the procedure following in gathering costs.

I now desire to say a few words about cost analysis and the advantages, from a standpoint of the executive, of the methods just outlined.

Through comparisons we may learn a great deal about our business, a great deal about anything in fact.

Current Month Profit from sales as compared with a previous month figures shows an increase or a decrease of so much. Why? Back to analysis; if we learn the reason we can at least do what

is possible to correct the condition, if we do not learn it, it goes unnoticed and nobody but ourselves pays.

Costs per pound of metal at the spout as compared with last month shows an increase of so much; what is the reason?

Cost of Castings as compared with last month shows an increase of so much. Must be a reason; what is it?

Cost of Furnaces by style shows an increase or a decrease of so much; why?

Expenses for a similar volume of business as done during a previous period shows an increase or a decrease of so much; why?

If we can analyze our costs—step by step—during the entire process of manufacture—as previously stated—we can learn the reason *Why*.

Have I supported my original contention? Let me summarize the points that I want to leave with you.

1. Your cost system should be your method of intelligently analyzing your business activities and results. It is not represented by forms or accounts. These are simply to facilitate gathering the information and to assist you in most clearly interpreting results.

2. Costs in order to be valuable must permit of analysis at any stage of manufacture. To make this possible, the cost system must conform to or align itself with the flow of production. This is necessary in order to answer the question, "Why."

3. Policies are shaped after conclusions are formed. Conclusions are or should be established facts. A cost system is your means of establishing cost facts.

A furnace manufacturer periodically found it necessary to close his assembling department because of stock shortages. In order to build a furnace you must have all the necessary parts. He had no stock or production control and the condition worried him.

Some times the mill room was choked up; sometimes other interruptions occurred. By carefully analyzing their conditions; by using a production and material control board; by installing additional cleaning equipment, he increased his production about 25%, and needless to say cut his costs. It is now a policy of this house to draw conclusions only after a most careful analysis of a given problem is made.

I have said a few words on the value of comparisons.

The members of your Association are today gathering for the tenth time to consider collectively such things as may benefit all.

By securing comparison through Association you can increase your fund of knowledge of what is possible in your field of business.

By these comparisons you can set a standard that you should at least try to reach. Of course, to get at this comparison in the most effectual way, some manner of uniform methods of Accounting and Cost Finding Methods is necessary, and I should like to see your Association give thought towards Association comparisons that may help individual members to answer the complexities that are continually confronting them.

A. C. Willard, A. P. Kratz, and V. S. Day, director and assistant directors respectively, made a joint report of Association Research Work being done at the University

of Illinois, showing that much good work was being done at Urbana in the interest of the trade.

The banquet held in the Hotel Winton at 6:30 p. m. closed the first day's session.

President Jones: I sometimes, in fact quite frequently, wonder if Professor Willard and his able co-workers realize themselves how important to our industry their work and if they have a true conception of the appreciation felt by our members for the work they are doing. Maybe we have not expressed this appreciation as often as we should, nor as heartily as we ought, but I want to say, right now, that we owe a great deal of thanks to these three men to whom we have listened this afternoon and that we want them to realize that we do appreciate the application and thought they are putting into this important research work.

A rising vote of thanks was then given to Professors Willard, Kratz and Day.

The banquet was as enjoyable an affair as the Entertainment Committee has ever conducted. The menu was fine and the community singing was probably more appreciated than the stereotyped singing and dancing so-called artists.

J. M. Triggs, who was toastmaster, showed his skill as an "introducer" who did not waste time in long introductions, but what he said about each speaker was very apt.

Three interesting addresses were delivered by W. M. Mumm on "Opportunities in Co-operative Advertising," which will be published in full in a near issue of AMERICAN ARTISAN; W. A. Colstron, on "Railroad Consolidation and Efficiency," and R. M. Hudson, the title of whose address illustrated by lantern slides, was "A Message from Hoover," and which dealt with the benefits which will result from standardization in manufactured articles.

The Entertainment Committee consisted of E. S. Moncrief, E. M. Stollenmeyer, E. C. Fox, W. D. Cover, Fred C. Noll, Charles Seelbach, Jr., T. E. Henry and Allen W. Williams.

Thursday's Session.

The Thursday session began at 9 o'clock and did not come to a close until nearly 2 o'clock, and every moment was used to full advantage.

After a thorough discussion of the matter of constructing a testing house at Urbana, Illinois, it was decided to leave the decision as to the type and financing of the house to a committee composed of the members of the Executive, the Code and the Advisory Committees.

Dean F. Paul Anderson spoke briefly, but in his almost inimitable impressive manner on the work which is being done to advance the technical and practical knowledge of furnace making and installing. He offered the services of the Pittsburgh Laboratories of the Bureau of Standards.

Professor E. A. Stewart, of the University of Minnesota, read a lengthy and very interesting paper on "Merits of Warm Air Heating Apparatus When Properly Installed," copiously illustrated by lantern slides showing record curves and tables of temperatures and other atmospheric conditions in houses heated by steam, hot water and warm air, all showing that where the furnace is properly installed, it has many advantages over either of the other two methods.

R. W. Menk followed with a constructive paper on "Fans as Applied to Warm Air Heating," which is published in full on pages 28, 29, 30 and 31.

E. B. Langenberg moved that a committee be appointed to cooperate with the Department of Commerce in the matter of standardization. The motion was passed.

E. F. Gloe urged that a greater effort be made to have the allied trade bodies become better acquainted with what this Association is doing, and Dean Anderson suggested that the journal of the American Society of Heating and Ventilating Engineers would be glad to cooperate.

Dr. John P. Wagner introduced a motion which was passed after a spirited discussion, to the effect that a committee of three be appointed to

investigate possibilities of and to formulate plans for a campaign of publicity, by advertising and educational news matter, this body to be known as the Committee on Publicity and Trade Practice of the National Warm Air Heating and Ventilating Association. Dr. Wagner's resolution is published in full on page 31 in this issue because of the great importance of the movement which will undoubtedly materialize as a result of this committee's work. The members appointed are Dr. John P. Wagner, Roy C. Walker and Charles Seelbach, Jr.

W. G. Wise, chairman of the Nominating Committee, presented the following report which was accepted by acclamation:

President—E. B. Langenberg, St. Louis.

Vice-President—Edward Norris, Utica, New York.

Treasurer—W. P. Cooke, Monroe, Michigan.

Secretary—Allen W. Williams, Columbus, Ohio.

Executive Committee—I. L. Jones, Utica; W. H. Hill, Elyria, Ohio; John Fry, Detroit; John V. Patten, Sycamore, Illinois, and H. Burnison, Toronto, Canada.

President Langenberg in assuming the gavel, expressed his gratification that the Association had now definitely dropped its former attitude of defense and was taking the offensive in a manner which is certain to be of honor and benefit to the entire warm air heating industry.

And thus came to an end the tenth annual convention of the National Warm Air Heating and Ventilating Association without question the best in its history, and much of the credit for this record is due to the high qualities of leadership exemplified especially in President Jones and Secretary Williams, but, of course, their good work would have been in vain had it not been for the cordial and loyal cooperation given by the members, many of whom have given freely of their time, thought and effort toward the common welfare of the organization.

Menk Emphasizes Necessity for Correct Installation Even When Fans Are Used.

Maintains That Fan Equipped Warm Air Furnaces Will Be Rule Instead of Exception, and That Such Systems Will Dominate House Heating.

HERE seems to be a gross misconception and an assumption among many connected with the manufacture, sale or installation of air furnaces, that a fan or blower attached to any kind of a furnace installed in any kind of a building, will overcome all defects and impractical conditions, and cause the furnace to deliver to every room just the correct amount of warm air at just the proper temperature in any kind of weather, without consideration of the sizes of warm air

and in obtaining knowledge that will be of untold assistance and which will benefit humanity to no inconsiderable extent.

Fan Is Not a Cure-All.

The failure in many instances to completely satisfy the home-owner with a pipe or pipeless air heating system has brought the attention of many in the furnace industry (from manufacturer to installer) to the belief that the use of a fan or blower will overcome all defects. There are thousands of pipe furnace installations that are apparently giving satisfaction, but in which it would be an easy matter, for one who knew how, to find numerous defects; in other words, "lame" ducts on the job, or perhaps others, where the air flow is not constant, same being afflicted with the "whooping cough." The unsatisfactory furnace installations that have been made are easily traced to the carelessness, wilfulness or ignorance of firms or individuals who did the work. It is through the efforts of conscientious firms and individuals, people who really understand the basic principles of warm air heating and who were willing to fight for them, that an interest has been awakened. This interest, if fostered, will grow and grow until within a few years I hope that there will be no warm air installations that are not everything that they should be.

I am going to illustrate the point that I want to bring out by calling your attention to an article and an existing state of affairs with which we are all more less familiar.

Some years ago the idea was conceived of building and marketing the pipeless furnace. Thousands of dollars were spent in advertising and in selling this particular type of furnace for buildings in which the same was often impracticable, and all to what end? It is true that a great many people who purchased



R. W. Menk.

leaders or the capacity of the furnace. I could enumerate dozens of instances to substantiate these statements.

All great fundamental principles when revealed are simple and easily usable. We are aware that it is not practical to attempt to cheat nature, nor is it advisable to gamble with her laws if right success or results are to be obtained. We, of course, have the privilege of manipulating her forces and making them work for our own good. The laws which govern the movement and conditioning of air have been worked out to a very fine degree and much credit is due those who have spent such untiring effort in developing them

have been satisfied with the results obtained, not because their furnace is what it should be, but because they do not know enough about warm air heating to realize how much better it could be, or because the results obtained were better than their experience with a pipe job.

Price Competition Bad for Industry.

You and I, who are in a position to judge, know how much better it would have been, not alone for the individual but for the industry as a whole, had the money and effort that has been expended been directed along right installation lines. Had the public been educated, told of certain basic principles that must be considered if warm air heating is to be entirely successful, competition would not be as it is today, more a matter of price than anything else, giving the unscrupulous furnace agent an opportunity, not only to take business away from the right kind of men, but to give the warm air heating game as a whole a black eye. Had a program of this kind been carried out, the builders of the better grade of homes today would be specifying warm air heat in preference to any other kind.

You are probably wondering what connection there can be between fans and blowers and pipeless furnaces. There is this: The use of fans or blowers in conjunction with furnaces is comparatively a new thing and we as an organization, well informed and in position to do so, must join together and concentrate our whole resources in an effort to make this new and developing phase of our industry a stepping stone toward bigger and better things, rather than permit it to develop into what later on may prove to be a handicap that will again destroy the faith of the public, which we have spent so many years and so much effort in obtaining.

I am convinced that an intelligent understanding by the public of the scientific principles that must be considered, if warm air heating is to be successful, is the only way in which we can possibly bring about

the rightful placing of our industry in its proper position, as an outstanding factor that will go further than any other in making the buildings in which people live into homes, rather than just a place to eat and sleep. I am sure that this organization will see what is necessary to achieve the results that we want and that every member will do his utmost toward promoting the idea that will result in the greatest good to the greatest number of people.

Warns Against Over-Enthusiasm.

The possibilities for the use of fans and blowers in connection with warm air heating systems are so great and the advantages so outstanding that there is a possibility of our letting our enthusiasm carry us too far. We do not want to overlook the fact that the furnace installer, who must be depended upon to sell and install an apparatus of this kind, must be educated and must thoroughly understand, not alone the fundamental principles of warm air heating that will make it possible for him to install furnaces as they should be installed, but also he must be sufficiently well informed regarding the functioning and installation of fan or blower systems to be able to do work of this kind as it should be done.

I am of the opinion that it would be an advantage to have some kind of an air moving device connected with every warm air heating system. I believe that the time will come when such a condition will exist. I also believe that when that time arrives, warm air heating will be the dominant residence heating method, unless some very unforeseen progress is made in other methods.

It may not require much vision to imagine such a time or age. It may seem very near to those who are enraptured with the idea and who see immense production of such units and large bank balances to their credit. It is doubtful that a general adoption of the fan will come in a year and perhaps not in five years. It takes time and effort to evolutionize certain practices, and fans and blowers are no exception.

We are only going to take in proportion to the way we put, and I urge every furnace manufacturer and every furnace installer to familiarize themselves with the available devices now offered, that they begin at once to help work out this problem.

Cure of Lame Ducts Not Main Aim.

There is much divided opinion as to the type of fan and as to the proper method of applying same to the furnace. The supplying of a fan or blower in connection with a furnace, and thereby helping to eliminate the two or three "lame" ducts or curing the furnace of "whooping cough," is not the essential feature behind the idea and will not produce or create the results so possible and essential to warm air heating, although the overcoming of these defects will be of marked assistance.

Nature has a way of helping herself and this is especially true with the warm air furnace. The more closely we install it in conformity with her laws, the better results will be obtained. Consequently, the first essential to warm air heating is the proper installation of the right size heating unit, and from that point on the fan or blower can bring about many added advantages, which are in part, increased register temperature with a proportionate lower fuel consumption, increased air flow, better and more positive circulation and ventilation, filling every warm air pipe, conserving the furnace and the fuel, increasing the chimney draft for better combustion, overcoming sluggish draft and circulating the air during the hot summer months. How satisfactory the results will be will depend entirely upon how ideal the furnace system is installed.

Fan Essential for Large Installation.

Fans and boosters are particularly advantageous for large installations, such as churches, theaters, etc., thereby reducing the fuel cost oftentimes as much as one-half over a gravity installation, and in addition, heating the building more thoroughly and comfortably in a very much shorter period of time, and in

which case we advise an air delivery of a volume several times the cubical contents of the building per hour, depending upon the purpose that the building is used for. But do not assume that merely discharging a larger volume of more highly tempered air is the only essential; always keep in mind the ideal installation. Comfort does not simply mean a high room temperature, but it means an ideal circulation, or in other words, that the baby can play on the floor in any of the heated rooms in the house and that it is just as comfortable up in Mabel's room as it is down in the living or dining room.

Just to show you how absolutely necessary it is that we get together on this proposition and do so without any further delay, I will outline the situation as it stands at the present time.

There are several types of air boosting and circulating devices on the market at present. Some styles use propeller fans and others employ the blower or centrifugal style. Which will ultimately dominate is yet a question. Some types of boosters employ very small propeller fans operated at very high speeds, while others claim advantages with the use of larger fans operated at much slower or higher speeds. And the same seems true with the use of blower operated units.

One maker blows the air into the casing with no regard as to the number of return air connections there may be present, while another uses a similar device, but claims that all cold air returns be dampered or connected into one duct. One claims it is better to use a large unit and to expend a little more for power, in order to get results more quickly; while still another contends that such practice is not necessary and is also wasteful. One type uses the same sized fan for all installations, while another changes the size to conform with the size of the furnace. All are striving to get better results out of the furnace.

It is easy enough to cite the advantages of fans, but who is willing

to concede that they also have disadvantages? Who, as a manufacturer or installer of furnaces, has spent a winter with a blower system in his home? I dare say that there are very few present at this meeting who have done so. Many have, of course, seen the results that have been obtained where apparatuses of this kind have been installed, but what besides a higher air temperature or increased air flow, or perhaps curing a "lame" duct or two, has happened? If the installation was not correct in the first place, the same leaders that have the advantage when the blower is not in operation are the ones that will still have the advantage with the blower, unless dampers are adjusted or manipulated to meet both of these conditions.

The air leakages about the casing and warm air leaders are not sucking in dust and dirt if the entire casing is under pressure, but if only a small volume of air is being discharged into the casing by the blower, the siphonic action still takes place in the lower section of the casing and the suction of air within the casing draws air-dust and gases through the leaks and the cold air ducts as well, exactly in proportion to the increased velocity. Therefore, while we may increase the temperature in the house, we are also increasing the dust and gases as well. You will readily understand that to attach a blower to a warm air system, which has been installed and in operation for a period of two years or more, necessitates tightening or closing up every crack and crevice.

Take, for example, a cold air duct constructed by lining the joists. Unless the lining is removed and the spaces between the joists lined, there will be a considerable increase in dust, etc. Asbestos paper covers up a multitude of sins, and will for a time stop leaks, but such a method will not keep an installation permanently tight, as the paste loses its adhesive qualities and the system its efficiency and capacity effect. Don't mistake my motive in calling attention to these things, as it is only my

aim to point out some things that will make the average individual sit up and take notice, and that act as a sort of automatic brake for those who are letting their enthusiasm run away with them.

As to Noise from Fan.

There has been considerable discussion about noise. Of course there will be noise unless the air is discharged at a low velocity. However, there is no logical objection to a noise of the kind that is occasioned by a fan or blower system as applied to the average residence installation. You can hear the clock tick even though the electric pump or washer is in operation, or for that matter, there are numerous disturbances around a home that everyone becomes accustomed to very quickly and that will after the first few moments continue absolutely unnoticed.

Some there are who have placed a great deal of emphasis on power costs. Suppose it does cost a little more for power. The average home-owner does not consider an electric fan in the summer time an unnecessary expense, nor do we believe that they will consider practically the same thing an additional expense when used in the winter time, and which will not only add to the comfort of their home, but that will also cut their fuel bills to a minimum.

There is considerable difference of opinion regarding the logical point in the furnace casing to discharge the air from the blower. At any point it will come directly in contact with the side of the ashpit and rebound unless the air is delivered into the chamber in the same direction as the air flow through the casing. Will the effect be the same wherever located, and will the warm air leaders all have a like opportunity to function?

To sum up the fan or blower advantages, as they apply to the warm air furnace, it is my conclusion that while it may be of advantage to install a fan of a capacity that will merely remove the film of air in immediate contact with the heating surface, it is the opinion of many

that this does not serve all of the purposes that a fan applied to a furnace should.

If we are to advocate the use of fans in connection with furnaces, why not take advantage of every possibility by manufacturing and installing an outfit that will carry the entire load of the building while the same is in operation and deliver the air to the furnace, so that the air flow is uniformly discharged in the direction of the air flow through the casing against the heated castings in a volume and at a velocity that will quickly raise the temperature, drive the air immediately to the remote corners of the building, produce a nearly uniform temperature between floors and ceilings and so arrange the system that when the temperature is at a required height, drafts and blowers will be automatically stopped and the system continue to operate by gravity until the temperature falls below the required height, when drafts and blowers will again be automatically turned on, and thereby avoid any overheating of the furnace and supplying a system equal to that installed in our largest buildings; all of which can be done at a very small increase in cost and still have the cost much below other methods of heating, and which, without a doubt, will have the endorsement of the best heating engineers and architects in the country and same can be known as a Fan Furnace System or a Mechanical Warm Air System.

There are innumerable questions that I could ask. However, my main purpose has been to call your attention to the absolute necessity for correct furnace installations and to the fact that a lack of concerted action has placed the warm air industry as a whole under a tremendous handicap. I have also tried to outline the situation as regards fans and blowers as it actually exists and to show you in just what direction we are headed. I leave it to you, are we going to get together, work out a plan and coöperate with one another in a way that will, ultimately, mean a tremendous success for warm air heating, which is its

rightful due, and incidentally, better business and increased profits for everyone concerned?

I hope that what I have said will be accepted open-mindedly for the

best interests of the warm air industry, and I believe the subject is of sufficient importance to warrant discussion.

Chicago, Illinois, April 18, 1923.

Dr. John P. Wagner's Resolution Is Passed for Appointment of Committee on Publicity.

First Step Is Taken Toward the Devising of Means for Acquainting General Public with Advantages of Warm Air Heating.

WITHOUT question the most important step taken during the annual convention of the National Warm Air Heating and Ventilating Association was the movement started to plan and operate a campaign of publicity by which the many advantages of warm air heat-



Dr. J. P. Wagner.

ing, as against any other method of heating, can be impressed upon the great mass of the public.

The thing which started this movement toward a concrete form was a motion sponsored by Dr. John P. Wagner, President of Success Heater and Manufacturing Company, and it is so full of helpful suggestions for every one interested in warm air furnace heating that we publish the entire resolution with its preamble in full:

Resolution Introduced by Dr. Wagner.

Whereas, the National Warm Air Heating and Ventilating Association has in the past stood sponsor for

the promotion of better warm air heating and ventilating and now realizes the need of greater activities in that direction due to increased demand for better heating and ventilating practice,

Whereas, the National Warm Air Heating and Ventilating Association fully realizes the superiority of warm air heating when properly made, installed, and operated, and,

Whereas, the relationship between manufacturer, dealer and customer are vital and necessary to obtain the best results in reflecting the highest degree of economy, health and comfort, and,

Whereas, the research work of this association conducted by Prof. Willard and staff at the University of Illinois has stimulated a nationwide interest in universities, colleges, medical societies and health departments of many cities. All of which has promoted a universal demand for better heating and ventilating, and

Whereas, a number of manufacturers, members of this association, have undertaken, through individual effort and expense, to educate the public into a knowledge of better warm air heating and ventilating and its advantages as an air conditioning medium of preferred advantage, and,

Whereas, the necessity for educational propaganda is an outstanding need for the uplift and advancement of the warm air heating and ventilating industry, and,

Whereas, the best interests of all concerned can be most effectively and economically served by a concerted cooperative association effort

by the National Warm Air Heating and Ventilating Association in conducting a nation-wide educational campaign, thereby establishing the highest degree of confidence and lasting benefits to the industry as a whole.

Be it therefore Resolved, that this association assembled in Tenth Annual Convention at Cleveland, Ohio, April 18th and 19th, 1923, at this time, take definite action to create a committee consisting of three members to be appointed by the president.

That such committee shall establish and conduct a bureau to be known as Bureau of Publicity and Trade Practice of the National Warm Air Heating and Ventilating Association.

That such committee shall supervise and conduct the affairs of such bureau and at all times function in strict accord with the fundamentals and principles of this association and safeguard its integrity and promote the best interests of the warm air heating industry, and that this convention set a date for a meeting within six months from date to act upon the report and recommendations of such committee.

**International Heater Company
Shows Dealers How to Make
Profits Cleaning Furnaces.**

In no uncertain terms, the International Heater Company, Utica, New York, reminds dealers that they can maintain a profitable volume of business by devoting a part of their time to cleaning and repairing old furnace installations.

This is a real source of spring and summer business and the firm, in order to assist them in working up a trade in this line of business, has had printed a folding card suitable for mailing which it is selling at a much lower price than it would cost if made at a local printer's. The card is complete, so that all you have to do is to address and mail it. It calls attention to the necessity and advisability of having the furnace cleaned and overhauled as soon as the fire is allowed to go out.

Attention is also called to the fact that the firm handles a complete line of specialties for both boilers and furnaces, and that all repairs are made from the original patterns for Carton, Kernan, Wheeler, Pease, Howard and International boilers and furnaces.

The firm is making a special offer on the Little Draft Man Regulator, which retails at \$15.00, the special price being postpaid, \$6.25; International Flexible Fibre Flue Brushes, price postpaid at \$.45; International Clean-out Caps, retail at 25 cents each, fit all common patterns of International furnaces and one-pipe heaters; special price per dozen, \$.75 postpaid; per 100, \$2.50, by express.

**Charles F. Mertle to
Travel for Brillion Iron
Works, Brillion, Wisconsin.**

Charles F. Mertle, Madison, Wisconsin, has joined the sales organization of the Brillion Iron Works, Brillion, Wisconsin, and will travel out of Madison calling on the furnace trade.

Mr. Mertle is a practical furnace man of wide experience and is very well known and liked on the territory he covers.

**Can Business
Maintain Its
Present Velocity?**

That business men are not particularly anxious to forget the lesson they learned in 1920 is very well described by the editor of the New York *Commercial* in a review of the present activity in industry.

He says that it is by no means an unfavorable manifestation that Wall Street is not allowing itself to become unduly elated over the business situation. It is eminently satisfactory as it stands and there is the strongest desire to maintain it on its present basis. According to all calculations, business will continue active throughout the calendar year and for some time in the next year, and while there might be some

slowing down here and there as time goes on, it will simply mean that industry, which is now at high speed, will gradually settle down to something more nearly approaching normal, as we knew it in pre-war days. For example, we are at the height of the building boom. In the course of time the shortage will be made up and building will then be carried on at a less rapid pace. If there is anything topheavy in the present situation it is the building industry, and while in the nature of business it is not likely to collapse, it can taper off as the demand comes nearer being satisfied.

In the way of further remarks this editor continues to say that our whole industrial activity at present is based upon the fact that we are repairing war damage and are the only country with credit and facilities sufficient to do so. Secretary Hoover was wise in suggesting that government building operations be held in abeyance to provide a reserve when the slowdown comes, and it may be that in other lines we shall have to look about for something to take the place of the present active demand. While we may look for building activity to be the first to quiet down, there are still heavy arrears of work of other descriptions that should keep industry active for many months to come. Nevertheless, it is just as well to keep in mind that the present rate of activity cannot continue forever. Wall Street, looking at it from the earning standpoint, realizes that 100 per cent activity discounts the maximum, and is disposed to be a little cautious on that account.

The greatest danger lies in the ill-advised attitude on the part of labor. In the building trades they are already talking of advances of \$1 to \$2 a day for the new schedule to replace the one that expires on May 1. The assumption is that with the tremendous activity, the demand for labor is such that contractors will pay almost any price. This has already manifested itself in premiums being paid for bricklayers, for instance, that often enable them to earn as much as \$25 a day.

Pattern for Sitz Tub Used Where Running Water Facilities Are Not Convenient or Available.

Instructions Tell in Minute Detail How to Make the Working Drawing.

By O. W. Kothe, Principal, St. Louis Technical Institute, St. Louis, Missouri. Written especially for American Artisan and Hardware Record.

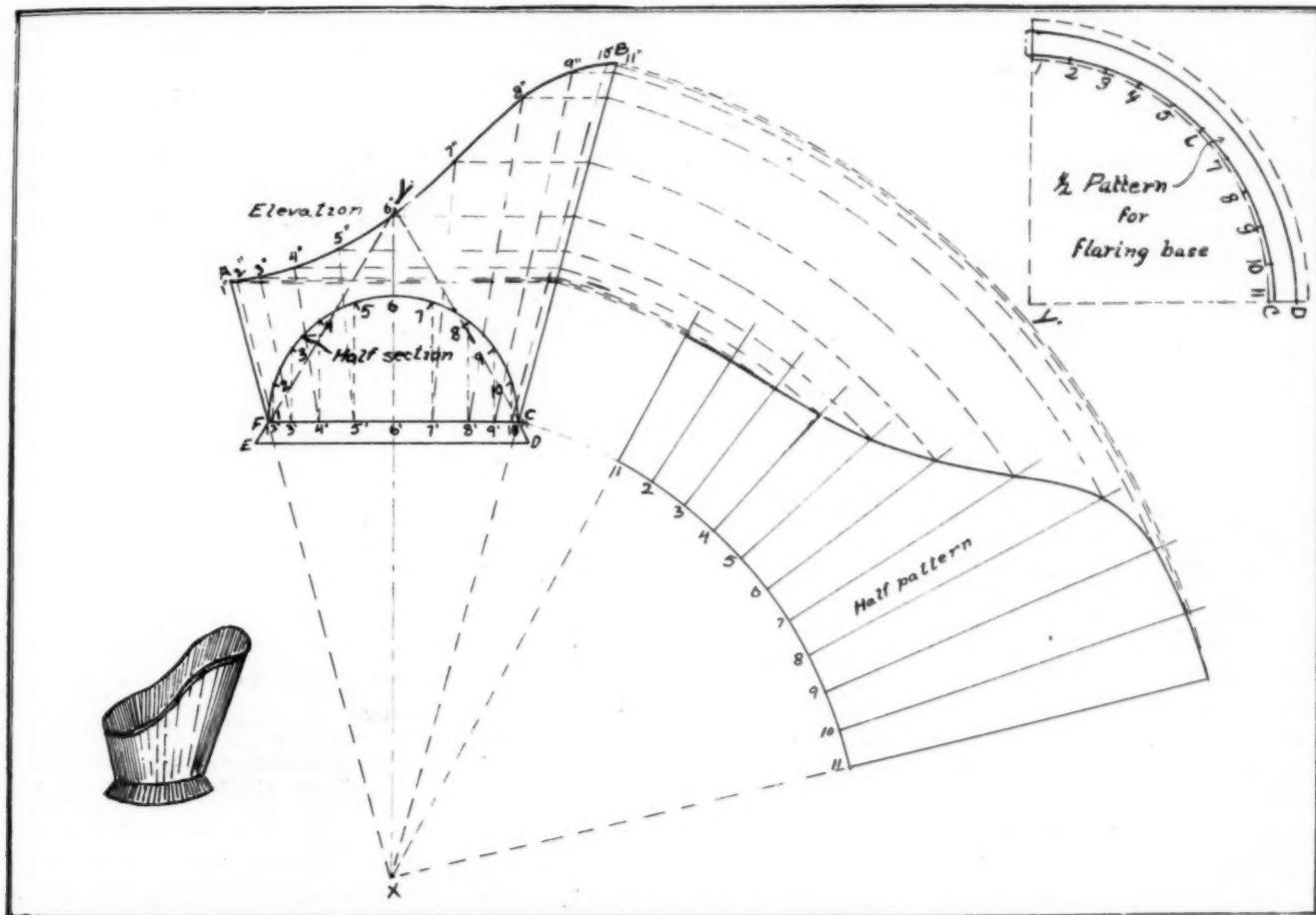
Sitz tubs are used in place of bath tubs, especially where facilities are not so handy for running water and other conveniences. Then a vessel is made similar to the enclosed drawing where the top is cut on a

base line F-C as points T-2'-3'-4'-5'.

The next point is to draw the desired flare of the tub, establishing the point X on the center line and drawing the flare lines A-F and D-C. Both must be of the same flare and this is governed by working from the center line. After this, sketch in the top curve B-A at pleasure, making it any curvature or slant you

the same as such fittings require.

As all these radial lines are foreshortened, with the exception of the two side lines, so from each point as 1"-2"-3"-4"-5", etc., project over horizontal lines to the slant line B-C. This sets all the radial lines in their true length on this one line. To lay out the pattern, set the dividers to X and C in radius, and describe an arc. On this arc mark off the



Completed Working Drawing for Making Sitz Tub.

curve, and a large roll is turned on or a hollow pipe is enclosed. To make the working drawing, first draw the sides of the bottom, as shown at F-C, and describe the semi-circle as a half section and divide in equal parts as from 1 to 11. From each of these points in the semi-circle, square lines into the

desire. Now place a pin in the apex X and place a tee square against this apex, and set to each point as, 2'-3'-4', etc. Extend radial lines in elevation to intersect the slant line A-B as in points 2"-3"-4"-5", etc. Observe this is no more than a cone with a top base cut off on a curve and so we must treat it

girth from the half section and from each point in this arc draw radial lines from X outward, as shown. Now, using X as center and each of the points on line B-C as radius, describe arcs so that they intersect radial lines in the stretchout having a similar number. Sketch a line through these intersections and you

have the half pattern for the tub. If the lower base is required, the flare can be made at pleasure.

Draw the line D-C to any flare and extend this until it intersects the center line as in Y. Then, using Y-C as a radius and any place, such as Y' as center, describe an arc. Pick the girth from the half section and set off on the inner arc I-II, drawing lines to the center Y'. After this, pick the radius Y-D from elevation, and, using Y' as center, describe the outer arc, also the wire edge, and the half pattern is finished. Laps must be allowed on all patterns for assembling, and if a roll is to be added to the top edge of the tub, allow two and one-half times the diameter of the rod or pipe to be enclosed and that will maintain the height of the top and still enclose the rod securely.

President Iowa Sheet Metal Contractors' Association Appoints Membership Committee.

President Lichy, of the Iowa Sheet Metal Contractors' Association, has made the following appointments to the membership committee:

W. R. Backman, Des Moines, Chairman.

W. J. Widemeyer, Carroll.

Peter Hansen, Missouri Valley.

C. L. Stahlbock, Fort Dodge.

In addition to the above appointments, President Lichy has instructed Edson Perry, Mason City, Iowa, President of the Auxiliary, to appoint five Auxiliary members to coöperate with the parent organization in increasing the membership, and each appointee is to send in his or her ideas to the chairman.

The appointments made by Mr. Perry are as follows:

C. F. Anderson, Des Moines, Chairman.

Miss Etta Cohn, AMERICAN ARTISAN, Chicago.

E. J. Dodd, Sioux City, Standard Furnace and Supply Company.

Will Snell, Davenport, Iowa, representing the Klauer Manufacturing Company.

P. E. Sauerwein, Keokuk, Iowa,

representing the Milwaukee Corrugating Company.

After each member of the committee has submitted an idea for increasing the membership of the organization to the chairman, a meeting will be called to order at Des Moines to determine which of the plans shall be put in operation.

Travelers' Auxiliary of Illinois Sheet Metal Contractors Association Appoints Directors.

Samuel P. Burgess makes the following statement regarding the appointment of four directors in connection with the Travelers' Auxiliary to the Illinois Sheet Metal Contractors' Association:

Acting in the capacity of President of the Travelers' Auxiliary to the Illinois Sheet Metal Contractors' Association, I am pleased to advise you of the following appointments as directors for the ensuing year:

Thomas W. Cox, St. Louis, Missouri, representing the Haynes-Langenberg Manufacturing Company.

A. E. Ketchum, West Chicago, representing the Wheeling Corrugating Company.

William P. Laffin, Chicago, representing the Tuttle & Bailey Manufacturing Company.

A. H. Schiewe, Peoria, representing Berger Manufacturing Company.

Joseph V. Arnhorst Succeeds C. H. Reeves as Chicago Manager of Merchant & Evans Company.

C. H. Reeves, Chicago Manager of Merchant & Evans Company for twenty-five years, has retired from active business and will look after his fruit farm, being greatly interested in apple culture.

He has been succeeded by Joseph V. Arnhorst, who was for twelve years Mr. Reeves' assistant in the Chicago territory. Mr. Arnhorst resigned two years ago to engage in other business, but has returned to his former connection with the appointment as Manager.

Mr. Arnhorst's long connection with the Merchant & Evans Com-

pany and his wide experience and acquaintance in the industry will fit him for his new responsibilities.

The Merchant & Evans Company is one of the oldest concerns in Philadelphia, having started as Merchant & Company in 1866 and succeeded by Merchant & Evans Company in 1905.

The general offices and sales rooms were for many years located at 517 Arch Street, with mills and smelting plant on Washington Avenue, between 20th and 21st Streets. In 1916 the entire organization was concentrated on the Washington Avenue site, where a combination office building and warehouse was constructed.

They are manufacturers, importers and distributors of tin and terne plate; also distributors of sheet metal, brass, copper. Black, blue annealed and galvanized iron and steel. They carry a complete line of roofers' and tinners' supplies and machinery, and manufacture the M. & E "Almetl" Fire Doors and Star Ventilator.

Merchant & Evans Company have sales offices and warehouses in New York, Chicago, Cleveland, Kansas City in addition to the home office in Philadelphia.

Powell Evans is President, and W. E. Waters, General Sales Manager.

Department of Commerce Issues Fourteenth Census of Iron and Steel Manufactures.

The Department of Commerce Bureau of the Census has issued the Fourteenth Census of the United States Manufacturers, dealing with iron and steel, and including blast furnaces, ferroalloys, steel works and rolling mills, tin plate and terneplate, wire.

The pamphlet contains 58 pages and is prepared under the supervision of Eugene F. Hartley, Chief Statistician of Manufacturers.

Confidence is the very basis of all achievements. There is a tremendous power in the conviction that we can do a thing.

The Cost of Doing a Sheet Metal Business Is Brought Out in Detail by Chris. Young.

Detroit Sheet Metal Contractor Shows How Necessary It Is to Know All About All Expense Items.

(Continued from March 24.)

In our issue for March 10, on pages 23, 24 and 25, and in our issue of March 24, on pages 22 and 23, Mr. Young, a Detroit sheet metal contractor, explained what the cost of doing a sheet metal business is and the following article is a continuation of those two articles mentioned above:

But let's see,—take the six men and four helpers' payroll of \$1,512.00 per month; he would receive, according to the payroll of $\$1,512.00 \times \text{Officers' Salary}$ unit 0.082, equalling \$123.98.

But running a small business of this size, he would be drumming up all the business and is therefore entitled to the unit of "Salaries—Selling" which is 0.0799, on \$120.80.

And inasmuch as his foreman is productive he is also entitled to the indirect labor unit of 0.088, on \$132.05.

So we have:

Officers' salary	\$123.98
Salaries—selling	120.80
Indirect labor	132.05
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Total	\$376.83

The shipping expense will remain which amounts to \$186.12 of which \$70.92 may go to "Lost Time" and \$115.20 for a driver's salary.

Comparing this with the operator's salary of \$328.00 per month, based on a \$5,000 per month payroll, we find that the small operator draws \$52.78 more salary than the larger operator.

And supposing that both operators are getting their work on close competition, or practically without a profit, it is clearly seen that the small shop is the better proposition of the two.

The large operator must increase his salary with profit—but how can

that be done when there is no profit to be had?

Now then, as to rents.

An operator with a \$6,000 payroll, according to the rent unit, will be paying $\$6,000 \times 0.0165$, or \$369.00 rent per month.

An operator with only three men and two helpers, a payroll of \$756.00 per month, applying the rent unit, would be paying \$46.49.

It all looks simple, does it not?

And I believe that these figures are not far from being correct.

You can apply these figures in group units or all in one total unit of one dollar to your total expense budget based on your productive labor, to see if you are within keeping of your estimated expense in relation to your volume or running behind, or you can apply them in group units—anyway you see fit so long as you do it.

Big Volume Not Always Desirable.

Here is another illustration to prove that volume is not what it is cracked up to be, also to show where volume is needed.

Let's take the one man and one helper payroll, a total of \$291.60 per month.

Applying the expense units, how much salary will the boss have in this case when he does all the selling, superintending and office work?

He does all the work called for under units of

Officers' salaries	0.082
Office salaries	0.089
Salaries—selling	0.0799
Indirect labor	0.088
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Total unit 0.3389

Applying this unit to his expense budget of \$291.60 we have \$105.55.

In most cases his entire time is productive along with his one man and helper, but we will base this example only on one-half of his

time as productive, so we have 108 hours at \$1.00, \$108.00. Therefore, his salary per month is \$213.55.

You may say that this man should increase his volume, or better, work for someone else.

But supposing this man gets a profit on his work, say at least 10 per cent on top of his merchandise, labor and expense, and basing his merchandise on the average at the same amount as his productive labor and taking into consideration that the larger operator is after the volume and in most cases without a profit, we set down this example.

Hired payroll	\$ 291.60
Owners, productive	108.00
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Total labor	\$ 399.60
Merchandise	399.60
100 per cent overhead....	399.60
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Total cost	\$1,198.80
10 per cent profit	119.88
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Monthly sales	\$1,318.68
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Now to compare his salary with the larger operator's salary of \$328.00 per month, we have:

Administration salary	\$105.55
His productive earnings... 108.00	
Earned profit	119.88
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Total monthly net earnings	\$333.43
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Now, inasmuch as the larger operator is not getting a return on his investment, we can't insist that the small operator should.

They are both getting practically the same salary, the only difference is:

Big Business, Big Worry.

Little Business, Little Worry.

Capital Units Number 1.

Bank balance	0.02½
Accounts receivable31¼
Work in progress.....	.18¾
Stock of merchandise.....	.25

Equipment	.10
Autos and trucks	.08 1/4
Furniture fixtures	.03 3/4
<hr/>	
	\$1.00
Capital Units Number 2.	
Bank balance	0.04
Accounts receivable	.20
Work in progress	.30
Stock of merchandise	.12
Equipment	.16
Autos and truck	.14
Furniture fixtures	.04
<hr/>	
	\$1.00

How to Apply the "Capital Units."

That is to determine the amount of business a given amount of capital can handle.

The difference in figures between Number 1 and Number 2 is the difference in the size of the business and the difference in management.

Some will require a certain amount of capital to conduct the business on a sound basis.

Others conduct their business on their nerve and someone else's money.

To explain the application of these units to a given capital, including borrowed money, we will take the figures as shown in Number 2.

And in order to keep within the limit of these figures, you will have to be a good manager, a good buyer and a good collector.

Supposing you were going to start in business with a \$5,000.00 cash capital, and knowing that you can borrow \$5,000.00, this will give you \$10,000.00.

Now the question is, how will it be divided according to the capital units?

The application is the same as the Expense Units to the Expense.

Bank balance, $0.04 \times \$10,000$ —
\$400.00 at all times.

Accounts receivable, $0.20 \times \$10,000$ —
\$2,000.00 at all times.

Work in process, $0.30 \times \$10,000$ —
\$3,000.00 at all times.

Stock merchandise, $0.12 \times \$10,000$ —
\$1,200.00 at all times.

Equipment, $0.16 \times \$10,000$ —
\$1,600.00 at all times.

Autos and trucks, $0.14 \times \$10,000$ —
\$1,400.00 at all times.

Furniture and fixtures, $0.04 \times \$10,000$ —
\$1,400.00 at all times.

Total capital, \$10,000.00.

12 months

Monthly outlay, including
expense \$ 3,000.00

Cost of sales per year... 36,000.00

10 per cent profit..... 3,600.00

Yearly gross sales..... 39,600.00

The return on your capital in this case is 36 per cent.

Now can you do it?

Ordinarily it is only 24 per cent.

In conclusion I want to ask you just one question:

If it is impossible for you to live up to the 10 commandments, as given here, will you at least remember them and try to live up to some of them for at least one year until the next convention?

Remember and Practice These 10 Commandments.

1—*Love thy neighbor as thyself, also thy competitor, but not his wife.*

2—*Include in the selling price for items—Merchandise, Labor, Expense, Profit.*

3—*You must have a profit even if you have to speak to your competitor about it.*

4—*Thou shalt not steal thy competitor's through increased volume which does not pay a profit.*

5—*You must receive a return on your investment.*

6—*You must create "velvet" and distribute same, to the betterment of efficiency.*

7—*It is your duty to put your ideas to work for the benefit of the sheet metal industry, creating a new demand, to offset evergrowing competition.*

8—*You must consider your capacity, weigh your ability and not forget that there is a limit when considering additional volume.*

9—*Analyze your business and find out where the pennies in your dollars go.*

10—*You must get together; speed up sales; keep down expenses and stop the other fellow from using your money.*

P. L. Biersach Instructs Committees Regarding Duties and Authority.

It is one thing to appoint committees for the successful carrying out of the work of an association and another thing to instruct them properly and empower them with the proper authority to go ahead with the work in hand. Often it is found that the work of two or more committees overlaps, causing confusion on the part of the chairmen regarding the extent of authority, etc.

Recognizing the need of more clearly defined lines in matters of this sort, Paul L. Biersach, of the Master Sheet Metal Contractors' Association of Wisconsin, has prepared a code of ethics and duties of the various committees of the association so that each committeeman knows what his duties are.

Mr. Biersach's outline is as follows:

"The legislative committee's duties comprise the supervision of all legislation which may be enacted in the State Legislature. They should keep in touch with all matters brought up before the Legislature and appear, if necessary, before the legislation committees to protect our interests. Also advise the officers of any important legislation which needs their attention so that the necessary steps can be taken for the best interest of our whole organization. This work also applies to city and county legislation.

"The duties of the committee on employment are to keep in touch with all matters appertaining to employment, gathering data from time to time as to the working conditions in various localities of our state; provide necessary steps towards the creation of apprentices and mechanics; gather statistics on labor problems, and report their findings at each annual convention.

"The committee on education should provide literature and gather information as to the education of our members as to the best method of doing business, endeavor to enhance the business ethics in general

of the Sheet Metal trade and report at each convention.

"It is the duty of the committee on trade relations to see that harmony, good will, satisfaction and coöperation exists between manufacturers, jobbers, etc., on the one side and the Sheet Metal Contractors on the other side; to investigate any and all complaints and disputes which may arise from time to time and report the same to the board of directors immediately.

"The committee on ways and means was created to devise ways and means towards the creation of funds which may be used for our association, and should, if necessary, ascertain what funds are required, create a budget, and make such appropriations from time to time as to their proper disbursements.

"The committee on overhead-burden should gather from time to time statistics, in general, as to the cost of doing business for shops and plants of all denominations in the Sheet Metal industry and report their findings at each convention as to the best method to be employed as to 'Overhead-Burden.'

"The resolutions committee should draw up resolutions on all matters sent to them throughout the year, and particularly at the convention, and make their report at the last session of each and every convention."

Sheet Metal Contractor's Suggestions Add Dressy Appearance to Building.

The accompanying illustration is that of a building which, at the mere suggestion of the sheet metal contractor, was trimmed and decorated with sheet metal. The sheet metal work was done by Leo Held, of 3033 Lisbon Avenue, Milwaukee, Wisconsin, and proves that a contractor can increase his business if he is "on to his job." It also shows how the manufacturer can assist the contractor with plans and designs.

The Milwaukee Corrugating Company, Milwaukee, Wisconsin, furnished the sheet metal material

for the building and Charles L. Atwood, Advertising Manager of the firm, has the following comment to make in regard to the work:

"The original plans for the business building shown did not include the metal tiled hood, nor the ornamental cornice across the front, nor the metal ceilings that adorn the two beautiful stores, but they were put in at the suggestion of the sheet metal contractor.

"Picture to yourself this building as it would appear without the exterior ornamentation referred to.

the job as it would appear when finished. The same cooperation and assistance will be given in case metal ceilings should be desired for the interior.

Armco Ingots Iron Sheets Will Be Carried in Stock by Jobbing Department of Follansbee Brothers.

The following interesting announcement has been sent out by the wholesale department of Follansbee Brothers Company, Pittsburgh:



How Appearance of Building Was Enhanced by Suggestions.

The tile hood and the cornice work actually 'put the building on the map,' as it were. The average business building in any city is an unattractive piece of architecture, and the inexpensive method of dressing it up with sheet metal adds 100 per cent to its appearance.

"A number of buildings in Milwaukee, have been treated in this way. The metal blank is an especially happy thought in relieving the bleak monotony of flat roofs. The Milwaukee Corrugating Company, manufacturers of blank metal tile used in the building illustrated, are glad to cooperate with the sheet metal contractor to the extent of furnishing lump sum estimates of the cost, also blue prints to show

A sense of responsibility to those whom we hope to make our permanent customers and friends has guided us in selecting Armco Ingots Iron, which we offer for your sheet metal requirements.

We would like to have you feel that we are your representative, applying our knowledge of sheet metal to the selection of a grade of material that will give you the best results for money invested.

We are anxious to prove that, like Armco Ingots Iron, our policy of handling high grade material is the best in the long run.

To this end we are now equipped to supply all of your sheet metal requirements in rust-resisting Armco Ingots Iron. Of course, we also

carry a stock of steel sheets, but we earnestly urge that Ingot Iron be used on every job where a soft, ductile sheet will cut forming costs and permanency is desired.

Sheet Metal Collapsible Boat in Novel Pattern Made by H. F. Thompson.

Duck Hunters, Attention! Prepare for the fall duck season!

The accompanying illustration shows how H. F. Thompson, Manager of H. F. Thompson Boat & Pattern Works, Inc., Decorah,

about prodding us into activity along fire prevention lines and laying out programs of activities so that inspections of premises are regularly made by men who know what to look for.

Do You Always Require a Definite Promise of Date of Payment or Goods You Sell on Credit?

Every merchant should see to the enforcement of a rule that no goods shall leave his store without a definite promise being made as to exactly when they are to be paid for

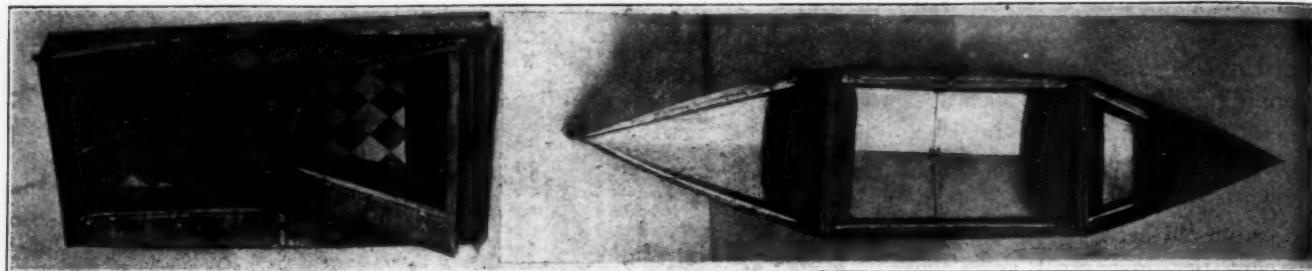


Illustration Shows Boat Nested and Ready for Use.

Iowa, has made it possible for duck hunters and sporting enthusiasts to equip themselves with a light, portable, one-man boat for use in rushes, etc.

The boat is made of sheet metal and, as shown in the illustration, it is collapsible. It weighs 125 pounds and is from eleven feet six inches to fourteen feet six inches in length.

The specifications given as follows are for a Model 26: 11 feet 6 inches to 14 feet 6 inches in length; 3 feet 8 inches amidship; 13 inches depth amidship; 15 inches depth at bow and stern.

Have You a Permanent Fire Prevention Committee in Your Town?

Of committees we have no end, but there is good sense in the suggestion of a Chicago man that a permanent fire prevention committee in each town would greatly reduce the number of people who lose their lives in fires, lessen the destruction of property and reduce insurance rates. It is no credit to our common sense that the insurance companies must hire men to go

—if bought on credit. At first sight this seems like such a simple requirement that it is almost superfluous to mention it, but so is the prescription that a doctor often gives to a run-down patient, that of "Fresh air, exercise and to be careful not to overeat." In fact, the very simplicity of the rule given is what makes it often overlooked. Always have a definite agreement as to time payment is to be made. The rule is so good that it will stand repeating.

Notes and Queries

Repairs for "Rust Resisting U-So-Na" Range.

From Ray L. Eggleston and Company, 285 Memorial Road, Houghton, Michigan.

Can you tell us where we can get repairs for the "Rust Resisting U-So-Na" iron range.

Ans.—Northwestern Stove Repair Company, 20 West Lake Street, Chicago, Illinois.

Tin Cups.

From L. H. Sullins, Pampa, Texas.

Who makes one-pint tin cups for advertising purposes.

Ans.—National Enameling and

Stamping Company, Milwaukee, Wisconsin.

Solder.

From L. H. Sullins, Pampa, Texas.

Who makes a solder that will solder cast iron, and that has a special flux and is used with a soldering copper just as other solders.

Ans.—Special Chemicals Company, Highland Park, Illinois, and Chicago Solder Company, 4241 Wrightwood Avenue, Chicago, Illinois.

Old Metals.

From Koliha Brothers, Schuyler, Nebraska.

Will you kindly tell us who buys old metals, such as brass, copper, lead, and old radiators.

Ans.—H. Samors and Company, 501 South Phelps Street, Springfield, Missouri, and Argo Iron and Metal Company, 1640 Elston Avenue; Burnstein and Skidmore, 1014 Blue Island Avenue; H. Kramer and Company, Loomis and 21st Place; Western Metal Company, 657 West Ohio Street; all of Chicago, Illinois.

Wrought Conductor Hooks.

From Hammond Sheet Metal Company, Second and Cass Avenue, St. Louis, Missouri.

Can you tell us who makes the old fashioned wrought conductor hook.

Ans.—Milwaukee Corrugating Company, Milwaukee, Wisconsin; Berger Brothers Company, 237 Arch Street, Philadelphia, Pennsylvania; Vaughan and Bushnell Manufacturing Company, 2114 Carroll Avenue, Chicago, Illinois, and Friedley-Voshart Company, 733 South Halsted Street, Chicago, Illinois.

Golden thoughts are readily turned into glittering remarks.

Spring Builders' Hardware Display Wins Third Prize in AMERICAN ARTISAN Window Competition.

Howard C. Crabb Arranges Rich and Artistic Display, Making Frequent Use of Elevated Pedestal.

COLONIAL builders used door latches, knockers, etc., to a vastly greater extent than they did other forms of builders' hardware if the fact that there are more of the former old relics found in New England nowadays than the latter is any indication.

Particularly appropriate is the

solutely irresistible appeal. The appearance of this window is such that it could only be surpassed with the greatest of difficulty.

The display shown in the illustration was arranged by Howard C. Crabb for Belcher and Loomis Hardware Company, 83 Weybosset Street, Providence, R. I.

blue lamp shade and rose lining, together with the mahogany pedestals, the hardware mounting and the blue cards all were in perfect harmony.

This setting made the hardware stand out to perfection, and made a special appeal to prospective spring builders.



Howard C. Crabb Arranges Prize-Winning Spring Builders' Hardware Display for Belcher & Loomis Hardware Company, Providence, R. I.

artistic spring window display of Corbin hardware which won the third prize in the AMERICAN ARTISAN AND HARDWARE RECORD Window Display Competition which closed April 1. The rich and aristocratic setting and background, together with the manner in which the objects themselves displayed are mounted and arranged makes an ab-

The description of the window is as follows:

The curtain in the background was blue; the background itself was arranged with beaver board painted white, with gray ribbon stretched across it to represent a window. The overdrapes were made with rose-colored cretonne, which blended very well with the blue curtains. The

Sales of House Furnishings Are Greatly Increased.

Spring renovation of homes has had the usual effect of stimulating activity in the house furnishings field. Wholesalers, however, say that they believe that current orders reflect more than the usual seasonal increase. There is an added

volume of business that is coming, it is said, from the increased industrial and agricultural activity throughout the country. The buying is not restricted to a narrow range as was the case last spring, but it covers a broader assortment of merchandise. Many of the retailers are offering these goods at close prices, capitalizing the increased demand, with a view to attracting attention to other departments.

Panhandle Hardware & Implement Men to Meet at Amarillo, Texas, May 14 and 15.

The Fourteenth Annual Convention of the Panhandle Hardware and Implement Association will be held at Amarillo, Texas, Monday and Tuesday, May 14 and 15.

A program of unusual interest has been prepared, and members are urged to attend. Headquarters will be in the Hotel Amarillo.

The officers of the association are as follows:

President—S. E. Cole, Lubbock, Texas.

Vice-President—H. B. Thompson, Dalhart, Texas.

Secretary-Treasurer—C. I. Thompson, Canyon, Texas.

G. H. Jantz Is New Member of Anchor Brand Wringer Family.

The many friends of G. H. Jantz, who was President of the American Hardware Manufacturers' Association several years ago, will rejoice to know that Mr. Jantz has accepted a highly responsible position with the Lovell Manufacturing Company, makers of the famous Anchor Brand clothes wringers and kindred lines.

During his many years' connection with the American Wringer Company, Mr. Jantz traveled all over the country, and his acquaintance with wholesalers and large retailers of hardware, as well as with manufacturers of washing machines is probably not excelled by

any use. He was counted as a friend by hundreds of these men.

In a letter to AMERICAN ARTISAN AND HARDWARE RECORD, announc-



G. H. Jantz.

ing the change, Mr. Jantz writes as follows:

"I am very thankful to the trade for the fine friendship and confidence with which I have been favored in the past."

H. F. Thompson, Iowa, Compiles Permanent Reference Book of American Artisans.

Read what one subscriber to AMERICAN ARTISAN AND HARDWARE RECORD is doing with the weekly issues of this paper: To AMERICAN ARTISAN:

Enclosed find my check for \$3.50 to renew my subscription for two years. I have been a subscriber of the ARTISAN for a number of years, and every year I take all the interesting parts of each issue and have them bound into one large book. Next, I record in an indexed book the various articles written on the same subject, and thus I have complete and valuable information on heating, ventilating and metal work at hand whenever I so desire same.

H. F. THOMPSON.
Decorah, Iowa, April 12, 1923.

What this country needs isn't to get more taxes from the people, but for the people to get more from the taxes.

Evenson Advises Caution in Buying.

Business men today should buy only in proportion to the ability of their customers to absorb merchandise right now, according to George M. Evenson of Knapp & Spencer, who addressed the recent convention of the Iowa Sheet Metal Contractors' Association. Nearly 250 persons heard his advice.

Mr. Evenson took the position that the present improvement in trade is due to the increase in the value of farm products, and said that the improvement will be short-lived if manufacturers advance their prices.

The speaker stressed the importance of the farmers and condemned business men and manufacturers who insist on raising prices on agricultural necessities because of a spirit of optimism prevailing at the present time. Attacks on politicians and the present system of taxation were made, and the sales tax, as championed by Senator Smoot, defended. Mr. Evenson's remarks follow in part:

Avoid Drunken Spree.

"We should give careful heed to the condition of our farmers if we would know the business outlook.

"There is a big demand for merchandise at the present time, and reports of 75 to 150 per cent increases in sales of January and February of 1923 are not uncommon.

"This is due to the depleted condition of stocks all over the country and to the shortage of raw material, due to the labor troubles of last year.

"I would dislike to see too much enthusiasm in buying at this time because I do not believe that any merchant is justified in buying more than his immediate needs. Pyramid buying is dangerous at all times, but particularly so just now.

"If business men buy merchandise and pile it up in their warehouses, it will bring on another drunken spree of inflation, such as we had in 1919 and 1920.

"According to the reports, there was paid in January at the stock yards in this city \$9,000,000 for

live stock. Add to that \$4,000,000 paid for grain; add to that \$1,500,000 for cream, eggs and poultry, and you have \$14,500,000 of new wealth that was dumped into the laps of our farmers in one month.

Multiply that by 12, and you have \$174,000,000 of new wealth that the farmers who marketed in Sioux City added to the world's prosperity last year.

Farmers Have Money.

"With such volume of new wealth, it will not take the farmer long to get square with the world, and today the majority of them find themselves in the enviable position of being able to buy what they want, but they serve notice on the manufacturing world that unless the manufacturer and the laborer can so harmonize their interests that they can produce the products of factory so it can be sold to the farmer at a price he can afford to pay, based upon what he gets for his farm produce, the manufacturer and his employees can eat the products of the factory. The farmer will refuse from this time forward to pay excessive prices for merchandise.

"If business is going forward with prosperous strides, you can rest assured that the politicians are always in step and there is nothing these fellows like to do so much as to spend money. If business is to continue in a cycle of prosperity, there must be found some relief from the burden of taxes now placed upon industry.

"In the next Congress, Senator Smoot will be chairman of the Senate finance committee. He is the leading advocate of the sales tax.

"I do not know what your convictions are about the tax, but I have yet to hear any man who opposes it offer another plan that will bring the same revenue. The present system of taxation puts a penalty on ability, thrift and enterprise. The sales tax should do better if placed properly.

"Present taxes confiscate a large part of the bigger incomes and put a damper on the plans of a successful man for the expansion of his industry."

Now Is the Time to Make Your Spring Paint Sale Campaign, Says Dipman.

Canvass Unpainted Homes; Use Your Telephone; Let Manufacturers Help You Increase Your Paint Sale Profits.

CARL W. DIPMAN says that every hardware dealer must realize that if he is going to do a large and profitable paint business he must get busy and *sell* paint and varnish. Successful retailing requires just as much of the art of selling as manufacturing or jobbing.

Whether the dealer's paint and varnish business is going to be larger than last season's depends very largely on what he does during the next two months. Although the paint business is not nearly as seasonable as it used to be, yet the next two months are the most important of the year, and how they are used will tell the paint profit story at the end of the year.

These coming months are of such vital importance to paint sellers because of the American home owner's and housekeeper's settled habit of doing the big annual housecleaning job in the spring. When winter has passed and when the new season is well on its way it is too late for the dealer to be planning. His sales plans must be laid well in advance. In the springtime he should be gathering the results of those plans.

Now is the time that every dealer should sit down and make his plan for a spring paint and varnish drive. In planning this drive, he should take his manufacturer into his confidence. He should ask for his suggestions and for the coöperation of his salesmen. Then, too, he must take advantage of every bit of advertising, promotion, coöperation or selling help he may have to offer. A great many dealers fail in their paint departments because they do not give the manufacturers enough consideration when making plans. Most manufacturers are equipped to give the dealers of their products timely and effective advice and it is up to the dealer to take full advantage of his opportunities along this line. Don't depend on your dealer

to do it all for you, however, as you must supply the final wallop in making the sale.

The beauty and economy of using paint should be enlarged upon to the fullest extent.

The following are a few methods of increasing paint sales:

Hold a "Bigger Paint Business" meeting some night after the store closes. Have each clerk suggest methods of increasing the paint business and make a list of the things to be done. You will be surprised at the number of good ideas your clerks will spring. Furthermore, they will like the compliment you pay them by asking for their opinions; get together with your manufacturer. Tell him you want to increase your paint business. Ask for his suggestions. Take advantage of every bit of coöperation he has to offer. Have the manufacturer's representative work with you, and tell him he must help you increase your paint business; have your clerks telephone every property owner in your community, asking whether they are interested in paint or varnish, and have them suggest that you will be glad to send them a paint card; always give live arguments in your advertisements on why paint and varnish should be used; successful paint windows will sell your idea; if school, church or other prominent buildings are painted with the brand of paint which you handle, mention this fact in your advertisements. Make a group of snapshots of private residences in your town for which you supplied the paint and display them, together with your paint window.

You'll have to get out and hustle around right now for business if you expect to have your paint department make a good showing for the season.

**Chicago Hardware Club
to Hold Informal
Dinner May 2, 6 p. m.**

Dinner, speaking, dancing and a general good time will be the features of the evening of May 2 at the Hardware Club of Chicago, when the annual dinner will be held. Prizes will also be drawn, as each ticket is numbered for that purpose.

All members who plan to attend the dinner should make their reservations without further delay.

**Richards & Geier
Issue Pamphlet
on Trade-Marks.**

Experience has proved that trademarks have been conspicuous factors in the development of large business.

In the selection of trade-marks, however, a multiplicity of confusing and intricate problems are encountered both from the legal and ethical standpoint.

Anticipating the necessity of legal guidance along these lines, Richards & Geier, patent and trade-mark attorneys, 377 Broadway, New York, have recently published the third edition of the pamphlet entitled *Trade-Marks, Trade-Names and Unfair Competition*. This pamphlet contains a résumé of all of the available information on trade-marks and trade-names in the United States and foreign countries. It has a short, concise treatise on trademarks in general, giving advice and the prerequisites preparatory to the adoption of a trade-mark or trade-name.

The body of the pamphlet is made up of chapters treating problems and questions, together with the laws and practices now in vogue, on all subjects that would interest a prospective applicant for a trademark or trade-name and questions pertaining to infringements, fees, renewals, etc., as, for instance, unfair competition embraces all forms of misrepresentations of identity, and in this pamphlet the authors have given a full explanation of many of the abusive practices and

the treatments of these by the courts.

Copies of the pamphlet are available for gratuitous distribution to interested readers, and all those desirous of obtaining a working knowledge of this subject would do well to avail themselves of this singular privilege.

The authors also announce that they will discuss fully with clients and manufacturers questions not specifically treated in the pamphlet and they will also furnish information on all new developments, so that anyone receiving the pamphlet may rest assured that he will be supplied with all current information. The choice of words used in the pamphlet is excellent.

**Readers Recognize
Benefits Derived from
Reading AMERICAN ARTISAN.**

We supply the reading matter, you get the benefit. Here's what one of our subscribers has to say about *AMERICAN ARTISAN AND HARDWARE RECORD*:

I am one of your interested readers and think your magazine is just the thing for any one in the hardware or sheet metal business. I wouldn't be without the magazine, even though its cost were three times the present amount.

Yours very truly,

B. J. MALERICH.

—, Minnesota, April 14, 1923.

Coming Conventions

American Hardware Manufacturers' Association, Spring Convention, Windsor Hotel, Jacksonville, Florida, April 24, 25, 26 and 27, 1923. Frederick D. Mitchell, Secretary - Treasurer, 1819 Broadway, New York City.

Southern Hardware Jobbers' Association, Windsor Hotel, Jacksonville, Florida, April 24, 25, 26 and 27, 1923. John Donnan, Secretary-Treasurer, Richmond, Virginia.

Old Guard Southern Hardware Salesmen's Association, Windsor Hotel, Jacksonville, Florida, April 25, 1923. R. P. Boyd, Secretary-Treasurer, R. F. D. 4, Knoxville, Tennessee.

The Western Central Association, Richmond, Virginia, May 7, 1923. Allen W. Williams, Secretary, 52 West Gay Street, Columbus, Ohio.

The Stove Founders' National Defense Association, Richmond, Virginia,

May 8, 1923. Robert S. Sloan, Secretary, Scranton, Pennsylvania.

The National Association of Stove Manufacturers, Richmond, Virginia, May 8, 1923. Robert S. Wood, Secretary, Troy, New York.

Hardware Association of the Carolinas, Columbia, South Carolina, May 8, 9, 10 and 11, 1923. T. W. Dixon, Secretary-Treasurer, Charlotte, North Carolina.

Arkansas Retail Hardware Association, Marion Hotel, Little Rock, Arkansas, May, 1923. L. P. Biggs, Secretary, 815-816 Southern Trust Building, Little Rock, Arkansas.

Arkansas Retail Hardware Association, Marion Hotel, Little Rock, Arkansas, May, 1923. L. P. Biggs, Secretary, 815-816 Southern Trust Building, Little Rock, Arkansas.

Panhandle Hardware and Implement Association, Amarillo, Texas, May 14 and 15, 1923. C. L. Thompson, Secretary and Treasurer, Canyon, Texas.

Southeastern Retail Hardware and Implement Association, covering Tennessee, Alabama, Georgia and Florida, Auditorium Armory, Atlanta, Georgia, May 15, 16, 17 and 18, 1923. Walter Harlan, Secretary-Treasurer, 701 Grand Theater Building, Atlanta, Georgia.

National Retail Hardware Association and American Hardware Manufacturers' Association, Richmond, Virginia, June, 1923. Herbert P. Sheets, Retailers' Secretary-Treasurer, Argos, Indiana, and Frederick D. Mitchell, Secretary - Treasurer, Manufacturers, 1819 Broadway, New York City.

Missouri Sheet Metal Contractors' Association, Statler Hotel, St. Louis, Missouri, June 25, 1923. Otto E. Scheske, Secretary, 3818 Maffitt Avenue, St. Louis, Missouri.

The National Association of Sheet Metal Contractors, St. Louis, Missouri, June 25 to 29, 1923. E. B. Langenberg, Secretary of St. Louis Convention Committee, 4057 Forest Park Boulevard, St. Louis Missouri; E. L. Seabrook, 608 Chestnut Street, Philadelphia, Secretary.

Sheet Metal Contractors' Association of Pennsylvania, Hotel Allen, Allentown, Pennsylvania, July 26 and 27, 1923. W. F. Angermyer, Secretary, 714 Homewood Avenue, Pittsburgh, Pennsylvania.

Retail Hardware Doings

Illinoi's.

E. E. Voorhees of Blandinsville has purchased the hardware store of J. L. Yeast, and Company at Good Hope, and has installed R. E. McCartney as manager.

Iowa.

D. O. Wright has purchased the Vredenburg and Lane Hardware store at Pisgah. Mr. Wright was formerly in the hardware business at Moorhead.

John Sandven has purchased the interest of his partner, Mr. Shepherd, in the hardware store at Estherville.

Ohio.

At Lewistown, the firm of Cook and House has dissolved partnership. Claude Cook has bought the interest of Olaf House in the hardware store.

South Dakota.

The Lamm Hardware store at Watertown has been destroyed by fire.

Through Sleeping Cars from Chicago to Stove Conventions at Richmond, Virginia.

Big Four and Chesapeake & Ohio Railways Will Provide Special Accommodations for Members; Train Leaving Chicago, Saturday, May 5, at 1 P. M.

STOVE manufacturers in the Chicago territory who expect to attend the various meetings which are to be held at Richmond, Virginia, during the week of May 7th, will be able to make the trip in through sleeping cars, which will start from Chicago, Saturday, May 5th, at 1 p. m., due to arrive in Richmond Sunday, 4 p. m.

A large number will join the party at Cincinnati, coming from St. Louis, Louisville, Evansville and other cities in the lower Ohio river states.

If a sufficient number of tickets are bought a special through sleeping car will be put on at Chicago and also at Cincinnati for those who start from there, so that the party may travel together and have these cars to itself.

Lower berth rate from Chicago to Richmond is \$9.00; upper, \$7.20; drawing room, \$31.50. The one way fare from Chicago to Richmond is \$30.51.

There is, however, an all-year tourist ticket from Chicago to Norfolk, Virginia, at the rate of \$60.00 for round trip. These tickets bear six months limit and are good to stop over on either the going or return trip within final limit of the ticket. They do not require validation at destination, but if any members desire to make the trip to Norfolk, they could do so at the same rate that it would cost to go to Richmond.

Further information may be obtained from the Big Four Railway Passenger Agent, 1038 Webster Building, Chicago, to which address reservations should also be mailed.

There Are Responsibilities of Being Your Own Boss.

Many a man and many a woman, too, wants to be recognized as his or her own boss. P. D. Armour didn't

believe that there was any such thing.

"There ain't any such thing as being your own boss unless you're a tramp," he said once. "But if a man wants to be foolish, give him his head. There is no easier way to cure foolishness than to give a man leave to be foolish. A man can't do what he pleases anyway, but the higher he climbs, the harder it is to do anything he pleases, because the plainer the people can see him."

A casual laborer may wander from one place to another and disappear without many people caring very much. But no one who holds a position of importance can escape from life quite so easily. The lives of too many other people are connected closely with his. The higher up you go the more lives you affect, the less freedom of speech and action you can have.—*Tom Drier, in Forbes Magazine (New York).*

Don't Be "Floored" If You Fail to Make That Sale, Sell 'Em Something Else.

A man's qualifications as an outside stove salesman can be pretty well determined by his attitude toward the sale he has just missed, and toward the prospect who has just turned him down. It comes natural to feel sore when you have put a lot of work on a sale, think you have it cinched, and then a competitor steps right in at the last moment and snatches the order away from you. But the salesman who knows his business is perfectly well aware that it doesn't pay to let failure convert him into a grouch.

Last fall one of the best salesmen I know—he was hustling for a hardware, implement and general firm—got tripped up on a stove sale. He was in the field first, he stuck the closest, and as I happen to know, he put up the best argument. He

had the sale cinched, to a positive certainty.

The prospect, however, was one of those chaps who investigates the entire proposition, and, not content with meeting the agents who get after them, go out and hunt for more agents, and take a look at every stove — or implement — within reach. At the last moment, after half a dozen salesmen had been camping for a week or more on the man's trail, the prospect heard of another make of stove, hunted it out, looked it over, happened to be caught by some minor selling point, and gave his order to a salesman who had never troubled to stir out of his shop.

When the salesman learned that customer had made his purchase elsewhere, he went right up to him the next time he saw the man and started to sell him a cream separator, which he did, all because of his persistent effort and unwillingness to be put down. That's the proper spirit.

U. S. Steel Corporation Willing to Abandon Pittsburgh Base.

At the hearing in Chicago of the Pittsburgh plus price system recently, W. W. Corlett, attorney for the U. S. Steel Corporation, signified the willingness of the corporation to abandon the Pittsburgh base plan in favor of an f. o. b. mill price. The defenders of the present system of quoting prices f. o. b. Pittsburgh mill assert that the system is a matter of convenience in that it provides uniformity of prices, simplifies the work of making out invoices and that it gives a clearer conception of price levels.

Western steel consumers who have been objecting to the Pittsburgh plus system have been endeavoring to show the unfairness of the system to dealers and consumers in territories far from Pittsburgh. The outcome of the willingness of the corporation to abandon the present system is awaited with interest.

It doesn't require much practice to acquire the art of being lazy.

Study Advertising Possibilities of Your Business and Apply the Following Rule:

You Can Make Your Advertising More Gainful by Being Specific in Your Offerings, Both as to Description and as to Price.

Thomas Couron Hardware Company, Danville, Illinois, "Sellers of Good Goods," announcing a February clearance sale. An abundant use of cuts has been made in this ad. Word pictures alone cannot, of course, make the appeal so forceful as where illustrations are used. The combination of illustration and

suggestions are all good. For instance, under the heading "Tools for Careful Machinists" the suggestion is made as follows: "A splendid chance for you to complete your set of machinist tools." This statement is well directed and is aimed to catch those prospective customers who have already made up their

THOS. CONRON HDW. CO.

"SELLERS OF GOOD GOODS"

FEBRUARY SALE

February is Clearance Time at this store — A making ready for Spring stock by making floor room and cleaning the shelves of short lines and broken lots. Visit our store during this event and get the benefit of this radical reduction in Glass Stem Ware, ruscuse China Ware, Rogers' Silver Plated Table Ware, Aluminum Ware and many other House Furnishings and Tools.

Quality Tools.

Hammer	Conron Hand Saw	Rule
Stanley 16 D. D. Claw Hammer made of good grade hammers, price each \$95c	Conron hand made saw fully warrant test price \$195	Stanley Brass end 2-foot Boxwood rule a 28c special 25 foot Favorite Tape Line \$40c
Auto Hammer	Saw Vise	Pliers
Just the thing for driving a automobile owner's 13 oz. ball p. m. auto hammer specially priced at 45c	Stover's folding saw vice priced at 95c	Lubman Pliers extra heavy Krauter Draedraught wrench, 7 inch size priced at \$1.95

Sale of Aluminum Ware.

Now is the time to buy high-grade Alabama Aluminum Ware as we are closing out our entire stock at 20% off. Please replace your old, worn-out cooking utensils with this heavy aluminum ware during this sale.

Indian Head Water Pitcher	75c	Plane	Stanley's Bailey Block Plane, No. 10, a tool that every home and carpenter should have. Price 35c
Stone Ware	18c	Auger Bits	Warren's Shop Auger Bits in all popular sizes, 3/8, 1/2, 5/8, 11/16, 13/16, 15/16, 17/16, 19/16, 1 inch sizes for \$1.10 and 1/2, 5/8, 11/16, 13/16, 15/16, 17/16, 19/16, 1 inch sizes for \$1.00
Curtain Stretchers	2.50	Cloths	Large size plaid, reinforced hot ton clothes basket, special, 75c.
Basket	Door Mats	Hatchets	McKinney's Steel Door Mats 15 x 42-1/2 1-2 in. \$1.15 17 x 4 x 30 inches. \$1.45
Step Ladder	Window Ventilator	Oil Stones	Kenney's Hand Made Hatchet special for \$1.95
6-ft. Step Ladder: belts securely fastened under each step. Price 2.95	55c	Combination Oil Stones, from 4 to 8 inches long. Price \$4.45c	

a short, cryptic, explanatory note is excellent, and it will also be noted in the accompanying reprint of the ad, which appeared in the Danville Illinois *Press*, that the prices are set in bold-faced type in order to make them stand out prominently.

The appeal is made to carpenters, mechanics and housewives, and the

minds to buy, but are merely waiting for a reduction in price before acting.

There are a few inconsistencies and errors in spelling in the ad that could have been corrected had it been given a more careful perusal before being released, but on the whole it is well arranged and timely.

The accompanying illustration shows a very well balanced advertisement of the Alabama Hardware Company as will be appreciated when it is stated that it was reduced from an original which was just twice as wide.

It will be noted, however, that the two prices are made more prominent than the text matter identifying the two items, although by placing

EXTRA SPECIAL
2 Qt. Blue and White Enamel Coffee Pots
38c
1 Pint Gray Enamel Water Dippers
13c

Alabama Hardware Co.

"Dippers" and "Coffee Pots" alone in their respective lines the important words of the descriptions are made to stand out.

Somebody failed to read proof carefully, because I am sure that in Alabama, Hardware is spelled with a "W," and not with an "M."

This advertisement occupied 3 inches double column in the *Anniston Star*.

* * *

The clerk who does not know what is displayed in the window of his store is going to hamper the effectiveness of that window display every day.

* * *

Competition brings goods into the limelight. Advertising helps keep them there, and when skillfully done, creates and intensifies desire. A great many people do not realize it, but advertising has been the cause of more improvements in manufactured articles than almost any other one force, for advertising itself is the kind of competition we call the attention of the public to in merchandising.

Volume of New Business in Iron Market Decreases; Anticipate Lower Price for Third Quarter Delivery.

Non-Ferrous Metals Easy—Copper Improved; Further Reaction in Tin; Lead Quiet; Zinc Easier; Labor Shortage at Mills.

THE copper market improved considerably, due to taking up of small lots being pressed on to the market by the American Brass Company. Exporters have shown increased interest, but the domestic consumers have been buying little. The producers claim a heavy reduction in their refined stocks since the first of the year. The small lots offered by the American Brass Company was selling at 16.87½ cents delivered April 18. Electrolitic was offered by producers at 17.00 cents delivered.

The trade will be much interested to learn that producers claim to have reduced stocks of refined copper in the first three months of this year by 79,800,000 pounds, based upon total deliveries of approximately 599,000,000 pounds to domestic and foreign consumers and a refined output of only 519,400,000 pounds.

As imports have been ranging from 65,000,000 to 75,000,000 pounds a month and smelter production in the United States 125,000,000 to 130,000,000 pounds a month, it is quite evident that if refined production was confined to an average of 173,000,000 pounds a month, there must have been a heavy increase in blister stocks. Exports of unwrought copper in January and February, according to Government returns, were a little less than 110,000,000 pounds and with March exports estimated at 60,000,000 pounds, total exports of unwrought copper in the first quarter of the year 170,000,000 pounds. Government full report for March is not yet available. April exports apparently are running at an average rate which will mean 80,000,000 pounds if foreign shipments continue as heavy in the second half as in the first half of the month.

Chicago Warehouse maintains a base price of 25½ cents on copper.

Tin.

The tin market underwent a further reaction on April 18, when sales of tin were being made at 45.25 cents for prompts and 45.37½ cents for futures.

The market, however, continued in a weak condition, especially the New York market where, through the falling off in the consuming demand and the large arrivals, many of the dealers found themselves temporarily overstocked. A fair sized tonnage of Straits tin changed hands in this market April 18 at 45.25 cents for April and May deliveries and 45.37½ cents for June and July. Consumers were given an opportunity to buy at these prices, but did not evince any interest, and so far as can be traced the business on that day was almost entirely between dealers and operators.

Chicago warehouse prices on tin have not changed, pig tin being 49.55 cents, and bar tin being 51.55 cents.

Lead.

The lead market was quiet but steady at from 8½ to 8¾ cents New York and 8.15 cents a pound St. Louis.

Joplin advices stated that another spurt in ore buying was noted last week with high grade ore commanding \$119.75 and the 80 per cent grades \$115 a ton.

Solder.

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$29.50; Commercial 45-55, \$27.75, and Plumbers', \$26.00.

Zinc.

The zinc market is much easier than it was the previous week. There is a slight improvement in domestic inquiry, but the London market is lower.

The effect here of the London price is purely sympathetic, as that market has long been too low to permit of export, but nevertheless the foreign fluctuations continue to influence the domestic market, and prices quoted here April 18 were again lower.

Prime Western for April was offered at 7.35 cents East St. Louis basis, May at 7.30 cents and June and July combined are quoted at 7.20 cents, but the latter figure could probably be shaded as producers show desire for business for those or later months.

Tin Plate.

The tin plate mills seem to be well sold up to July 1, against such production as they expect.

Sales in the open market, between mills and buyers who were not regular customers, were generally at \$5.50, \$5.75 or \$6.00 April 18, and thus the open market may be quoted at \$5.50 to \$6.00. An occasional sale was reported at above \$6.00.

In one quarter it was predicted that the leading interest would open its order books for a new period by the end of this month. There is growing pressure among some buyers to place orders for third quarter at least, and while the mills in their present mood would prefer to defer book opening, they will have to yield when the pressure grows strong enough. While it has been the trade custom to open order books for six months at a time with manufacturing consumers, though only for three months in the case of manufacturing consumers, there is a possibility that this time the mills will open books for third quarter only, not for the whole half year. There was not the same occasion to close business for the second half of a year as there was for the first half. The makers of packers' cans are

practically through with their work by September 30.

There were no definite predictions as to what the price for the new period is likely to be. The \$4.75 price prevailed when the bulk of the business was done for the current half year, the leading interest afterwards advancing 20 cents to \$4.95, while independents made various advances. Some have official or formal prices at \$5.25 or \$5.50, but will not sell. The trade takes it as a foregone conclusion that the opening price for third quarter or second half will be well above \$4.95.

There is a keen demand for skilled operatives in this field. Labor situations continue to make operations difficult for sheet and tin plate producers.

Sheets.

In the sheet market at Youngstown, Ohio, black tonnage was entered on the books at 3.75 cents and galvanized at 5.00 cents, Pittsburgh base. Blue annealed was entered last week at 3.50 cents, Pittsburgh. The market throughout the Valley seems to be in a healthy condition.

Opening of the books at Pittsburgh for third quarter delivery has been deferred, although the carry-over from second quarter will be so large in many cases that the action will be a mere formality.

At Buffalo sheet buyers were pressing for delivery. Mills are well sold through the second quarter. Galvanized is strong at 5.25 cents and black at 4.00 cents.

Sheet prices at Chicago were being held down. Blue annealed was being taken at 3.00 cents, 4.00 cents for black and 5.00 cents, Pittsburgh, for galvanized.

In some cases premiums over these prices have been asked by independent mills in other centers.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$24.25 to \$24.75; old iron axles, \$28.00 to \$28.50; steel springs, \$24.00 to \$24.50; No. 1 wrought iron, \$19.50 to \$20.00;

No. 1 cast, \$23.00 to \$23.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pounds: Light copper, 11 cents;

light brass, 7 cents; lead, 6½ cents; zinc, 4½ cents; and cast aluminum, 16½ cents. The demand for nearly all lines is heavy.

Pig Iron Market Dull and Quiet; Orders Confined to Carload Lots.

New Inquiries Exceedingly Scarce; Transportation Facilities Improving.

AT New York business in pig iron was dull and orders were confined to carload lots. New inquiries were small, but transportation conditions are improving. The same condition prevailed at Boston; in fact, sales last week did not exceed 3,500 tons. Advices received in Boston April 18 from Birmingham indicate that the market there is on a \$28.00 base with all 1.75 to 2.25 low phosphorus production sold up until November and all 2.25 to 2.75 and 1.75 to 2.25 high phosphorus production sold up until August. That is the situation in the cases of two furnaces.

Pig iron at Youngstown, Ohio, showed a halting tendency. Bessemer and basic pig iron in the valley continue nominal at \$31.00. Heavy melting scrap is quotable at \$26.50 to \$27.00.

At Pittsburgh small lots of Bessemer, foundry and malleable iron are moving at the going price of \$31.00, valley, where the market has stood for nearly four weeks. Nothing has been done in the past few days in large lots, the last business having been the Standard Sanitary purchases for third quarter, chiefly at \$31.00, valley, and covering part of the company's requirements. In basic there have been no transactions at all lately.

The Matthew Addy Company has the following report to make on the pig iron market:

"The present volume of the Iron Trade is limited only by its facilities for production and for transportation. The latter is most important for the railroads while doing extraordinarily well are still here and there unable to supply

all the empty cars that are needed. And it goes without saying that every time freight cars are lacking brakes are put on the orderly progress of industry.

"Buying of pig iron is not as large as was the case last month. But there is day by day a constant run of orders so that the new business placed on furnace books is by no means inconsiderable. As for shipments, they are very heavy, and consumers are continually asking to have iron and coke come forward faster. We have not a single request from a customer to have shipments held.

"Most of the iron which can be made this side of July is under contract. As for the third quarter but little iron has been as yet sold. There has been a disposition on the part of buyers and sellers to keep close to shore and not to anticipate the future too far. But it is inevitable that before long a third quarter buying movement of great magnitude will be on foot.

"The strength of the Pig Iron situation comes from the fact that there are eager buyers for all kinds of finished materials. In steel, the mills are portioning out their sheets and plates, their rods and beams, as carefully as possible so as to keep everyone satisfied.

"One of the most peculiar features of the situation is the caution displayed by the makers of automobiles. They are having a record business; but they are buying almost from hand to mouth. They are not piling up inventories. All of which is in exact contrast to the old way of most of the automobile makers."